THE

MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, and Rural Economy.

VOL. XI. BALTIMORE, JUNE, 1874. No. 6.

Agricultural Calendar.

FARM WORK FOR JUNE.

The hot suns and gust rains of this month, will not only ripen the small-grain crops, push forward the growing crops, but will also make the weeds and grass grow correspondingly, hence it is one of the busiest months in the year, and calls for the watchful care and untiring diligence of the farmer. It is necessary that his crops be often cultivated and the grass kept down. The corn is to be gone over with the cultivator or shovel-plow, at least, once in every ten days, but once a week is much better. If drilled corn, it ought to be hoed at the time the plants are thinned. This is an admirable working for this crop. We have said so much about the cultivation of corn of late that we deem it unnecessary to talk more about it at this time.

MEADOWS AND CLOVER FOR HAY.

Clover will be ready for mowing. Cut it when in blossom, before the heads turn brown. Cure it in cocks, and as soon as dry, put in the barn or in ricks in the field. By using a peck of salt to the ton, it can be secured before it is well dried, as the salt will prevent its heating, and render it more palatable to the stock. In some places, timothy, orchard grass, &c., will do to mow. Neither should be allowed to ripen the seed, if juicy, nutricious hay is desired. If the clover is intended to stand another year, for the two-fold purpose of yielding hay and greatly renovating the land, the after-maths should not be cut or depastured. The heads may be clipped, when the seed is ripe, by the clover seed gatherer. This after-math will act as a mulch and fertilize the clover roots which will grow in length and size, thereby adding to the amount of rich vegetable matter for future decomposition, and furnishing the soil with the best plant food. If wheat is to be sown this autumn on this clover turf, it may or rather should be grazed close, so as to give the wheat a clean fallow.

TOBACCO.

Keep the beds clear of grass, and set out the plants as the seasons furnish the opportunity to do so. Get your tobacco land in fine order, well fertilized after strong manuring, and plant the crop at the earliest possible moment. Early in the month smaller plants can be planted than later in the season, when the sun is hotter and the earth becomes drier. As soon as your tobacco in the barns is perfectly conditioned and has a sweet nutty smell, it should be packed when "soft" enough to handle without rattling or breaking; the leaves ought to have the soft, thick, stretching feel of a fine kid glove. They should be smoothed out straight, and not put in the hogshead doubled up and crumpled, nor in the shape of a rolling-pin. Good red, long leaved tobacco, well conditioned, will bring a good price. Though the last European news says of this very Maryland red, once so much in demand and commanded such high prices, that owing to false packing, deception in weight by means of stones, sand, &c., in this quality of tobacco particularly that it is not now enquired for; and to be offered as Maryland red, would be enough to prevent a sale at almost any figure. This is what individual dishonesty and careless, reckless *inspection*, has accomplished in part toward destroying the great tobacco interest.

WHEAT.

Harvest will take place on many farms during this month. As soon as the grain gets in the rough state it should be cut directly. It is economy to have a plenty of force in the harvest field, so as to get it over in as short a time as possible. Many persons do not tie it in bundles, but put it up in large cocks like oats. In a few days, either use one of your own, or hire a Thrasher that cleans as it thrashes, and is placed in a convenient spot or spots in the field. As the bags are filled it is taken to the granary, and the straw ought to be very carefully ricked so as to keep bright and dry for winter use. This plan is true economy, and that which

has usually been a long and tedious job, ofteutimes interrupted by wet spells when the wheat becomes generally damp, and sometimes much is lost by sprouting, is disposed of in a few days and the farmer has his crop without loss, secure in his granary, ready to be subjected to the fanning mill as often as necessary, to make it a clean, merchantable article, whenever the market price is a remunerative one.

MANGEL WURTZEL AND SUGAR BEET.

If not already done, thin these roots so as to leave them a foot apart, hoe them well and run the shovel plow along the rows. It is best to throw the earth against the plants. The practice has generally been to give them level culture, and they are allowed to grow out of the ground several inches, but this method has been altered of late by some of the most successful growers in England. The roots are given, at the last working, a hill, flattened with the rake or hoe. Weeds and grass must at no time be allowed to encroach on the Mangolds or Beets. On rich land, highly fertilized with bones or nitrogenized phosphates, these roots yield immense crops. A new variety of the Sugar Beet introduced last year in England yielded an average of *seventy-two tons!* per acre, in a field of many acres. The root crops are essential to success in the rearing and fattening of cattle, and to the dairyman they are indispensable as alterative, healthful food for milk cows, making a palatable change of diet, from dry hay and grain. They greatly promote the milk flow in winter. These crops may be sown as late as the 15th of June, with a reasonable expectation of a fair crop if the seasons should prove favorable. At least, it is worth the trial of an acre or two, for a half crop would be, no doubt, in the estimation of the cows, a wonderful improvement upon no roots at all.

POTATOES.

Fall potatoes, if not already planted, ought to be certainly by the 10th or 15th. They must have time to ripen, and if planted late they will come into market when it is full of northern potatoes, and consequently bring very low prices.

RUTABAGA.

We presume our advice as to the preparation and manuring of the ground allotted to this valuable crop, given in previous numbers of the *Maryland Farmer*, has been followed, consequently, we now advise you to sow your Rutabaga seed on the 20th, or as soon after as the state of the ground will admit. Drill the seed by hand drill-harrow, or simply a bottle and a quill, inserted in the cork of the bottle, after a shallow trench has been made. The rows should be two feet apart, or 30 inches might be more convenient for the use of the cultivator horse-hoe. After the plants come up, they should be thinned several times, vacant places filled with transplanted plants, until there is a full stand, leaving the plants one foot apart. After the seed is sown and covered, strew ashes and finely ground bone along the rows. Fish scrap or refuse fish salt, five or six bushels per acre, sown broadcast over the ground would be beneficial, as a fertilizer and cut worm exterminator. Ashes are a valuable fertilizer for Rutabagas; fifteen to twenty bushels of unleached ashes should be sown broadcast over each acre, with one bushel of plaster, either before the seed is sown or after the plants begin to grow. This is to be independent of any other fertilizers, such as bones, fish scrap, refuse salt, &c., also recommended for various purposes, in enriching the soil for the reception of the seed of this valuable crop, which well repays for any extra attention it receives. An outlay of $30, on an acre of Rutabagas would increase the yield certainly three hundred bushels, which at ten cents per bushel, returns the entire cost. But these three hundred bushels converted into mutton, lamb, milk or butter, would intrinsically be worth fifty cents per bushel, or one hundred and fifty dollars per acre, from thirty dollars expenditure. Yet with sorrow we say it, that many a small dairyman near the cities could make more in winter than summer, by putting down a few acres now in roots at small cost, and yet pass their homes this autumn you will find nothing for their cows but corn fodder, straw, and perhaps a few small turnips and potatoes, and possibly some club-footed cabbage.

MATERIALS FOR THE MANURE HEAP.

Do not fail to embrace every opportunity to gather material to swell the manure pile or form a compost heap. We know that as a rule, you will be too busy with the crops to attend much to this matter, but a chance day may occur on which the acccumulating articles for such a purpose can be gathered up for the barnyard or the pens in the field, where certain stock may be nightly confined, that it may become incorporated with the droppings of the stock, and those poor spots on which the pens are placed would become enriched the quicker and the better. The old system of cow-pens had in it much to recommend itself. Many an acre was reclaimed by that means, before science introduced us to concentrated fertilizers, which did not bring alone fertility and increased products, but brought also a great evil. Farmers felt it was easier, and pursuaded themselves it was cheaper to buy manures than to make them on the farm and out of the farm products. This was an

unctious thought to those who were inclined to spare themselves from all energy and labor they could, so they for years, neglected home-made manures, and relied on stimulants for their lands, and like the inebriate, the lands wanting substantial food, soon grew feebler under such exhaustive treatment, and gradually dropt into almost irreclaimable sterility.

SHEEP.

The early part of this month is the best time in this section, to shear sheep. This is an operation in which the unskillful, the passionate or naturally cruel man, often inflicts great cruelty on this animal, so remarkable for its endurance of pain uncomplainingly. It in some cases is *skinning*, not *shearing*. In some countries the sheep are washed by men and sheared by women, and in all sheep-countries the work is performed by practical and skillful shearers. It is pleasant to know that of late years, such men have at this season of the year gone out among the farmers and hired to shear the flocks. They ought to shear from 60 to 120 sheep per day, leaving not a single red stain to mark their want of accurate skill and experience. We would advise every flock owner to avail themselves of such services. The coat when it comes off is passed to the folder, who spreads it on the table, removes all the second quality wool, and spreads the clean fleece out, folds it, rolls, ties and weighs, puts a card on it with the number and weight, and it is ready for market.

This is a convenient time to cull the flock. Every badly formed and delicate ewe, or to which there is a palpable objection, must be marked for the butcher, and every promising ewe lamb with wether lambs enough added to make up the number of old sheep for sale, ought to be marked for the brood flock so as to keep up the number of the flock. Or the wether lambs may be sold with the old ewes and the money expended in the purchase of improved ewes, lambs and a buck, for an improved change, if the flock is desired to be increased or quickly improved to the highest order of grade-sheep. A few very superior ram-lambs might be kept over, taking chances to sell them as breeders for $10 to $15 each, during the Fall, and if not, after shearing next Spring they would bring from a butcher $6 to $8. Sheep after shearing ought to be protected from storms in the day as well as in the night, and for some weeks.

ORCHARDS.

Every fruit-bearing tree ought to have a painting in Spring or June, of the mixture—soft soap, salt, &c.—recommended by us in late numbers of the *Maryland Farmer*. Peach trees ought now to be inspected. Remove a few inches deep the soil about the bodies of the trees. Whenever there are indication of worms, puncture the places with a small wire or fine knife blade; in some instances will be found a collection of gummy gelatinous matter; remove this, strew ashes or lime over the open space, return the earth and sow on the top around the trunks of the trees salt, or a little saltpetre and slacked lime. The bodies must then be painted with the solution above referred, or the following which we expect is excellent. We copy it from number 120, volume 5, of that excellent Horticultural Weekly, "*The Garden*," published in London:

RECEIPT FOR MAKING A MIXTURE FOR PAINTING VINES, PEACHES, AND FIGS.—Take 1 lb. of soft-soap or Gishurst Compound to every gallon of water, and let the water be boiling hot, so as to thoroughly dissolve the soap. Add ½ lb. of flowers of sulphur to every gallon of water, and as much quick lime as will bring the mixture to the consistence of thick paint. Mix all well together when the water is hot, and, when the mixture gets cold, add a gallon of strong tobacco-liquor to it. When painting this mixture on Peach trees, it is safest to reduce its strength by adding a little more water, and some clay as well, so as to take off the whiteness of the lime, which is an eyesore to some when looking at the trees. Before painting this mixture on Vines and Figs, remove all the rough bark, and, when the mixture is dry, it will be seen where any part or crevice in the wood has been missed. Where such occurs, apply the mixture again.—W. TILLERY, *Welbeck*.

Blue Sky and White Clouds.

The ethereal blue color of the sky is due to minute particles of matter which float in the air. Were these particles removed, the appearance of the sky would be dead black. It is a fact in optics that exceedingly fine portions of matter disperse or scatter the blue rays of light, coarser portions scatter red rays, still coarser portions scatter all the rays, making white light. An atmosphere is full of aqueous vapor, the particles of which diffuse white light in all directions. When these particles are enlarged, they become visible in the form of clouds. The vapor particles of the white clouds are supposed to be finer and lighter than those of the dark clouds.

That the diffusion of light in our atmosphere, the blue coloring of the sky and the colors of the clouds are due to the presence of matter floating in the air, has been conclusively proven by Tyndall. On passing a beam of sunlight through a glass tube, the beam is rendered brilliantly visible by the reflection of light from the dust particles floating in the air contained in the tube. But on removing the dust particles, which is done by filtering the air by cotton wool, or causing the air to pass over a flame, the beam of light is no longer visible in the tube.—*Scientific American*.

GARDEN WORK.

GARDEN WORK FOR JUNE.

To have a good garden, there should be no weeds or grass allowed to get an inch high. This can be easily done if the ground is kept light by frequent raking or the use of the scuffling hoe and a little hand weeding. Use water freely in dry weather. These simple rules attended to will ensure success.

CABBAGES.

Set these out after each rain that may occur.—Before planting, dress the ground with salt, which will be a fertilizer, and also drive away the cut-worm, which sometimes is very destructive to newly set out cabbage plants.

CAULIFLOWER AND BROCOLI.

Seeds of each may be sown, for growing plants expected to flower in October and November. Plants may be set out like cabbage plants, and not suffered to want moisture, and occasionally liquid manure.

CELERY.

Such celery plants as have been planted in trenches or on the level beds, must occasionally be watered with brackish water, and the ground kept stirred and clean of weeds. Destroy the celery worm, which can easily be done, if they be carefully hunted and destroyed.

CUCUMBER.

Keep clean those already planted. Plant on a border about 20 or 24 inches wide, having a neat trellis, four or five feet high. The border should be rich. Let the cucumber plants stand, at the bottom of the trellis, from eight to twelve inches apart. As the vines grow, trim and fasten with broad soft strings, to the trellis. Water freely.—This plan of raising cucumbers has been tried by professional gardeners and practical men who wanted room. All who have tried it seem to be delighted. The advantages are said to be, the tenth part a space of ground will yield by the trellis as much fruit of superior quality and shape as the whole ground would. The vines bear longer and require but little work compared to the common plan of growing this vegetable. By planting early the vines will be done bearing in time to plant a second crop in July for pickles. The cucumber seed could be planted very early on this bed, and protected by glass or muslin covers, resting against the trellis. Thus by starting in small pots in the hot-beds, very early cucumbers could be obtained.

NASTURTIUMS.

Plant these in a rich, warm border, with a trellis ike the cucumber trellis just spoken of. The dwarfs are not climbers. The nasturtium is both useful and ornamental. It is a very brilliant ornament to the kitchen garden. Its fruit picked and thrown in salt and water until the quantity is sufficient to pickle, then drawn from the brine and plalaced in cold vinegar, make a condiment for fish and boiled mutton, equal to the Italian capers. The flowers and tender leaves make an appetizing dish for breakfast or lunch, bett than water-cresses.

WATER MELONS AND CANTELOUPES.

Keep the ground loose and friable, and allow not a sprig of grass to grow.

SYMBLINS AND WINTER SQUASH.

Treat these as advised for melons, as the vines grow, keep a flat hill about the plants.

PEPPERS.

The first good season, plant the peppers in a rich, moist bed; two feet apart each way, the plants should stand; keep the land worked clean, hill as the plants grow; they must know no dry time, if you want tender, and extra sized peppers for mangoes.

CORN.

Plant some early white variety for late roasting or boiling corn. The Adams and Tuscarora, or such like, heavy yielding, long-keeping green and tender varieties are best for late planting.

LETTUCE.

Transplant into a rich bed; set the plants ten or twelve inches each way. Sow seeds of the coss varieties. They are best for Summer.

ENDIVES.

Sow some seed for full crop. Tie up such plants as are large enough for blanching, or turn over them flower pots for the same purpose.

SMALL SALADING OF ALL SORTS.

Sow some seeds of each for a succession.

RADISHES.

Sow at intervals radish seed. The large turnip white, is perhaps at this season the best, being mild, firm, crisp and very large.

TOMATO AND EGG PLANTS.

Set out early in the month, the plants of tomato and egg plant, intended for the main crop. Keep them moist until they take root and begin to grow. You can scarcely plant too many tomato plants, they can be used in so many ways; and put up for winter so easily in cans, dried, preserved as figs, pickled and preserved both in the ripe and the green stage, &c. While the surplus can be sold or given to the poor and the sick, to whom they would come as a double blessing—a blessing to the receiver as well as to the giver.

MARTYNIAS.

Such as are fond of Martynias as a pickle, should plant a few hills. They make a very nice spiced

sweet pickle, early in the autumn, if they be gathered when young and tender.

ONIONS.

Keep these clean, and do not let the bulbs be covered with earth, except the potato or bunch onions; they should be cultivated like potatoes. If your onions seem inclined to go to seed, gently bend over the tops, and keep them so by a light pole resting on forks driven down to the proper height, after a day or two, reverse the tops and bend on the opposite, using the pole or a strong string, continue this for a week, or until the bulbs begin to swell, and plants show a tendency to bulb and not to run to seed. The centre-stem may be also broken off near the top.

BEANS, STRING SNAPS.

Sow a few rows for a continuance.

POLE BEANS.

Keep these free from grass and the earth well stirred, with some of the earth on the top of the hills, withdrawn occasionally and the hill renewed with fresh earth. Keep the vines well around the poles, and nip off the ends of such vines as reach six feet in height.

PEAS.

Sow some rows of tall-growing marrow peas, such as Champion of England and Black-eyed marrow. Plant four inches deep, in drills six feet apart, in a bed which is partially shaded, if to be had conveniently; in the centre space between the rows, sow a row of spinach. It will be off before the peas are fit to gather—stick the peas as soon as up.

MUSTARD.

This useful plant should be more generally sowed. The English white, sow at intervals during the season in drills a foot a part, cover half an inch deep. Water in dry weather. It succeeds in almost any soil. To make the seeds into a flour fine enough for a condiment for the table, is troublesome, but an ample supply of seed for culinary purposes, pickling, putting in cider, &c., can thus be cheaply obtained. It is grown chiefly for its leaves as a salad, to be used alone or with cresses, lettuce, &c. It is excellent early in the Spring, when boiled as greens; we think it preferable to Kale. There is a Chinese variety with leaves double the size of the English white and to be preferred as a salad. It is very wholesome. Its aromatic pungency is refreshing.

FEEDING COLTS MEAL.—A. F. Fowler, of New Hampshire says "colts are spoiled by feeding too much meal; would give a colt two quarts of shorts three times a day; believes too much hay is fed to working horses; does not believe keeping salt before a horse is beneficial."

Translated from the French for the Maryland Farmer.

THE HARVEST.

Grain is rapidly approaching maturity and we shall soon be in the harvest fields. It is exceedingly important to do this work under the best conditions, and although we have several times referred to this question, we feel called upon to renew it, with a few rules which careful and intelligent cultivators cannot safely disregard.

The cutting of the grain should take place 8, 10, or even 12 days before the perfect maturity of the grain, as recommended by the great master de Dombasle; when the straw has began to whiten and dry at the base, to lose its green tint, and when the grain has acquired more firmness than it presents to the nail and fingers when in a milky or pasty state.

Grain harvested before complete maturity has a smoother skin, is better for cattle and yields more flour; millers and bakers can discriminate by handling it and will pay more for it: there is no shattering, the yield is greater since the grains are better supplied, and the crop is less exposed to the dangers of the weather. With strong heat grain ripens very rapidly; under these conditions the grain is not properly nourished, it remains delicate and small; when the stem ripens too rapidly the ascent of the sap is arrested and the grain dries as in a stove.

Vegetation is not stopped simply by the separation of the straw from the roots: in the last period, cut or not, the grain draws nothing from the earth but is nourished by the juices in the straw and for that reason it is important that grain should not be dried too quickly as would happen if it were exposed to hot suns which would remove without profit its nutritious properties: upon the other hand, if it was heaped up into barns after being tied into sheaves it would be exposed to fermentation and rot: the sheaves should be thoroughly cured in shocks before stacking or housing.

Numerous experiments have been made and demonstrated that grain cut 8 or 10 days before perfect maturity gives the best results, in quantity and quality.

In addition, it has been established by M. Duchartre that the germinating properly precedes maturity: M. Roiset, has further proved that the nutritive power of grain not ripe is equal to that of ripe grain. An early harvest therefore, is an advantage to both producer and consumer.

It is moreover important to cut the crop before it gets beaten down: in this case the plant is nourished with difficulty; it cannot be acted upon by the winds, it receives the direct rays of the sun and hence dries up: the grain is not properly supplied and the return is small.

For the Maryland Farmer.

FODDER CORN.

Growing corn for soiling and for curing as a fodder crop has become a common practice throughout the Eastern, Middle and Northern States, and with proper management it may be made a very profitable crop.

There is, however, much room for improvement in the mode of producing and curing, as well as in feeding it.

A very common and erroneous practice, that I have observed in various districts, is that of sowing the corn broadcast, and very thickly, and on very imperfectly prepared land, and often as a second crop; making it so late that it has very little value for forage, even if well cured; but it is destroyed by early frost, in a premature stage of growth, and the profusion of sap in it is frozen, after which it soon sours, and it being difficult to cure any crop at that season, it is often stocked, stacked, or stored in a half cured condition, where it moulds or musts, and is utterly unfit for forage for milch cows, as it makes very little and very poor milk, in fact it has little value, even for manure.

In all cases it should be planted in drills, and the distance between the drills should be in proportion to the variety of seed used; if the seed is of a large, rapid growing variety, the drills should not be nearer than two and a half feet, and for sugar corn seed they may be twenty inches. The ground should be very fertile and be tilled, if it is tenacious, only when it is in proper condition, and be deeply sub-soiled, and well pulverized, and the crop should not be planted until the season is so well advanced that the seed will germinate quickly, and the growth of the crop will not be retarded for lack of warmth, an essential in the growth of corn for whatever purpose. The surface of the ground should be frequently tilled prior to planting; harrowing is the cheapest and best mode of tilling; and after the plants are up a finger length the harrowing may be repeated, and the surface given a thorough dressing, provided the Thomas harrow is used.

The plants are injured by harrowing whilst they are just protruding the surface of the ground, though none of them will be destroyed, but after they have attained the growth that I have named, they will bear passing the harrow over them in opposite directions without mutilation or injury, and if this be done, and all other directions have been carried out, the crop will require no other tillage, and it will so fully occupy the ground as to thoroughly prevent the growth of everything else.

The earliest and warmest land should be selected for planting the crop for the early soiling; but it is not profitable to cut forage corn until after it has tasselled, and for the curing crop it should be allowed to stand until some of the foliage begins to turn dry and brown.

The proportion of animal nutrition in the corn plant after it is matured as above intimated, is very much greater than in earlier stages of growth, and if the crop is to be cured, the labor of curing is greatly reduced.

It may be claimed by some that the crop will become more woody at so late a period of growth, but it will never be objectionably so, provided plenty of seed is used, say from six to nine pecks to the acre.

PLANTING.

If land is prepared properly, the fodder corn, and also the crop corn, may be well planted by the use of a good grain drill, and it will generally be found most profitable to apply a suitable fertilizer in the drills, as an early vigorous start is of vast importance to the corn plant, and greatly reduces the cost of culture.

SOILING.

In the use of corn for soiling, where feed is expensive, it is profitable to chop the green corn, and to induce animals to eat more, and to eat all; it is profitable, with proper facilities, to run all through the power fodder cutter, sprinkle slightly with water, and add a little bran and meal mixture. For making milk this course will be found very economical.

But says one, "we cannot afford that amount of labor." I practiced it for eight years, and I found that I could not afford to feed in any other way, the labor is very slight, if everything is arranged as it should be and the work is systemized.

SUCCESSIVE PLANTING.

It is a common practice to make several planting of soiling and fodder corn, which I consider injudicious.

When the proper season has arrived for planting, plant all, and no fears need be entertained of any portion of the crop becoming too well matured.

A very large proportion of the corn grown for this purpose is cut in a condition too premature to be profitable.

The most propitious season for corn growing is very short in high latitudes, and the whole of it is needed to grow fodder corn most profitably.

CURING.

The process of curing is usually very carelessly and slovenly performed.

I have found it profitable to take particular pains in curing. When a large crop is to be harvested, it is well to cut and place in small gavels, selecting

good curing weather; turn the gavels twice or thrice; bind into small bundles and stack neatly, putting eight to twelve bundles in a stack; and bind them with two hands. Thus manipulated, they may remain until required for feeding, or until the press of autumnal work is over, when they may be stacked or stored.

SALTING.

Of late I have decided that it is most judicious to use no salt in storing hay and fodder, and that the only reliable way of salting animals is to place rock salt when the animals have access to it perpetually—and never put any in the feed.

GRAVEL.

If corn stalks are chopped for feeding, which have been grown and stacked on gravelly land, the gravel should be beaten out of the buts before passing them through the machine.

If on examination of the buts it is found that they are more or less moulded or have turned red with mildew, it will pay to shape them off on a block with an axe, before chopping with machine.

The advantage is two-fold, viz., the labor of keeping the knives in order is greatly reduced, and the animals are not compelled to chew on gravel.

But a still more injurious effect of the gravel that accumulates in the pith of the buts may be avoided by chopping them off.

A post mortem examination of a borine, fed on food cut and wet, so as to be swallowed without much mastication, shows that the pebbles thus taken into the rumanants stomach remain there, producing irritation, and not unfrequently injurious inflammation.

J. WILKINSON,
Baltimore, Md.

For the Maryland Farmer.

MULCHING—WINTER WHEAT—MEADOWS —UNDERDRAINING.

In some regions of the country, and on some farms, it is impossible, or very difficult, to raise *Winter Wheat*, on account of winter killing, from the heaving of the ground by freezing and thawing, which turns the roots out of the ground.

This can be prevented in most localities, by *mulching* or top-dressing with manure or compost; it should be done in the autumn, after the ground becomes frozen, by spreading the manure over the growing crop, so as to cover it thinly; then, if the ground heaves by action of frost, the mulching protects the roots and the plants from being killed; as it falls into the holes or cracks made in the soil and covers the roots, setting and covering them back into the ground, so that they go on growing in the Spring; besides being fertilized and stimulated into thrifty growth, by the manure being washed down into the earth by the Spring rains and moisture.

By this process the writer has raised thrifty crops, and seen others do the same of winter wheat, on lands where otherwise it could not be done.

The same is true of old *sod-bound meadows*, which were so nearly "run out" that grass enough would not stand up to be worth mowing; but by giving those meadows a liberal *top-dressing* of manure or compost, in Autumn or early Spring, a heavy swath of hay—two to three tons per acre—could be cut in June or July; and in September another cutting of at least one ton to the acre could be mowed; and where it can be conveniently done, all the better if a fair top-dressing of manure is applied to the bare meadow, soon after the first mowing, it will give a handsome return for the cost, in a second crop or after-math; while the yield of hay in the following summer will be much increased. This mulching prevents the sun from baking or drying the ground and scorching the roots of the grass, and enables it to go right on growing most thriftily. In fact, the most profitable way to apply manure in all general farming, is to use it on the surface, as a top-dressing on all crops which grow or stand during winter, as meadows and all winter grains. In no other manner does the manure or compost give so large or quick return and profits, for the cost of using it as in top-dressing grains and meadows. It prevents the grain from being injured by the winter, and the meadows from being scorched by the sun; while it fertilizes the soil immediately about the roots of the plants, at the very time when they most need cherishing and stimulation.

Underdraining, to carry off surplus water, also does much to prevent winter-killing, and to give meadows a luxuriant growth, by making the ground warm and porous, and prevent frost-heaving.

One acre of ordinary land, faithfully treated in this way, with top-dressing on the winter crops, thoroughly *underdrained*—will produce twice as much profit in a course of years, as if managed in the usual way, without draining and mulching.

There is probably no one thing in all a farmer's operations that will give a greater or so good return for the expense, as judicious surface-manuring, in the manner above indicated. The writer has seen numerous illustrations of its truth in different States, as well as from his own experiments, as from those of others.

Covering and shading the surface of the land is one of the greatest uses in profitable farming.

LAND MARK.

Translated from the French for the Maryland Farmer.

THE POTATO.

The Potato has become an object of prime necessity. Without this precious tuber, one would not know how to live in the country, and we can add without fear in the cities: the culture of the potato also has taken enormous proportions: it is not surprising therefore that uneasiness takes possession of minds when any disaster whatever attacks this popular plant.

Cultivators have already been much frightened for several years because potatoes spoiled, not only in the soil, but where they were stored: these fears are well founded, and in certain localities the disorder has been so great that the tuber has become in some degree an object of luxury.

We have never been much disturbed, and have always thought that nature, which has a horror of a vacuum, and which makes so many efforts to perpetuate the species would re-establish things in their normal state: we knew there would be a period of trial, more or less long, but we had confidence in the future, and facts have shown we were right: man often agitates himself and makes himself miserable without being willing to cast his eyes seriously on the harmony of nature, which may be destroyed for a certain time, but which necessarily re-establishes herself little by little.

Other evils have come like the disease of the potato; the oidium of the vine, the disorder of the silk, the phylloxera, the new scourge of the vine.

Men and vegetables are subjected to certain inundations from which they can extricate themselves only with difficulty, whatever they may do: we do not wish to encourage seekers for a remedy, neither do we wish to hear them utter cries of alarm, and declare that the evil is nearly incurable.

A new disease of the potato, prevalent in several places, presents itself: instead of having strong shoots, arising from strongly constituted germs, they send forth weak and slender stems imperfectly suitable for reproduction. In certain localities this phenomenon is produced in the fearful proportion, 60, 70, 80 and 90 per cent. but we have not been informed, however, that this disease is general.—What can be the cause of this evil? We are compelled to give ourselves up to conjecture: one says that we must attribute this abnormal vegetation to the bad choice of new varieties, or to immature tubers, to the early pulling which has taken place generally for several years, in order to keep the potato from the disease which induces rottenness in the soil, and as a consequence the badly formed tubers will be weakened and produced only sickly buds or eyes. It is declared also that in the rotation of crops, potatoes are planted too often in the same place, which cannot have much bearing, for this crop occupies so small a place in the rotation that cultivators seek to put it in a different soil with the double effect of cleaning the land and preparing it by heavy manuring for succeeding crops: in these cases people love to repeat, *post hoc, ergo propter hoc* (after this, hence, on account of this.)

It has also been declared that *egermage*, that is, the operation which consists in ruffing off the germs before planting, has contributed to produce *filcusite*, the name given to the new disease, if disease it is: it is certain that in sprouting the tuber exhausts itself, and that it contains a less quantity of matter to nourish the plant in its infancy: but the sprouting has long been practiced, and it is only within a few years that we have heard of the *filcusite*.

Without doubt care should be taken to prevent the potatoes from sprouting, which is not impossible as all know: to accomplish this it is only necessary not to keep the tubers in a place too warm, and to move the heap from time to time to place the top ones at the bottom.

One of our friends, Count De Lautrec, does better than all that on the Loire, Inferieure, Castle Briont, near Nantes: he puts the seed potatoes under a wagon house, leaving them thus exposed to the rigors of cold weather: he loses a certain number, but those which remain are in the best condition and become very strong: besides, they have by degrees become accustomed to this treatment and to day the losses are reduced to minimum proportions. We must observe, however, that when intensely cold weather is anticipated the heaps are covered with a bed of straw or some other protection.

To compel the disappearance of the disease, M. Carriere advises an annual change of seed at least until the perfect removal of the malady, in the mean time exercising particular care to accord the preference to the best varieties, and those least affected by the disorder.

To sum up, M. Carriere lays down the following rules:

1. Change the seed every year, getting them from localities that are free from the taint.

2. Before planting wait tell the buds begin to develop, thus securing an opportunity to reject tubers which do not show large and strong germs.

3. Put the potatoes designed for planting in an airy place, and not too many in a place, as far as possible, to avoid their early sprouting and the necessity of rubbing the sprouts off; better plant a little earlier than do this.

4. Avoid planting on ground where there have been potatoes several times in a few years.

These directions are good, but we are not certain they will cause the disappearance of the *filcusite*—above referred to—because where tubers possessing strong germs have been planted the difficulty has presented itself.

M. Couturier thinks there is no great advantage in planting large, medium and whole tubers, and states that he has often had just as good results from planting pieces as from whole tubers. We do not share in this opinion, which appears to us to be a cultural heresy, for the exception should not make the rule: it does not follow because a common mare and a bad stallion may produce sometimes a good and beautiful colt that we should not use choice breeders: now, large potatoes are without contradiction choice vegetable reproducers, and we do not cease to repeat that cultivators do wrong when they do not use for seeds and plants, those which they find handsomest and most perfect. The most serious cause of deterioration of species proves that the reproducers are not chosen with enough care: neither do we entirely agree with those who say, change your seed as often as possible: on the contrary we believe it is preferable to make special culture oneself to get good seed, because by that means one always knows perfectly what he has, whereas in buying, one is exposed to fraud and often finds a greater evil than the one left behind.

It appears to us then, that we need not be frightened beyond measure at the new disease called *filcusite*, for it disappears if we doubt its existence in the least: at any rate it is important to follow a mode of rational culture which consists in sowing carefully selected seed, to mellowing the soil, furnishing a stable manure in good condition and containing enough potash, weeding and hoeing several times with care: it should be remembered that the potato prefers before all things a sandy soil: a moist or clay soil is not congenial to its habits: you have there the best means to avoid disease and obtain abundant crops.

In some localities another disorder is spoken of, the softening of the tubers; the stems and leaves grow yellow and the potatoes become soft as if they had been frozen: they remain in this state without decaying but are worthless: numerous conjectures of the organ of this malady have been advanced, but the cause has not been discovered; physiological and anatomical examinations have been made, but we are no wiser now than before: science is very weak when the question is the discovery of the secrets of nature, and its pretentions are often greater than its powers. *

Small and steady gains give competency with tranquility of mind.

Ashes and Lime as Fertilizers.

The *Western Rural* in reply to a Young Farmer discusses this subject as follows:—

Wood ashes, whether leached or unleached, are of great value, especially on sandy or gravelly soils deficient in potash, especially for Indian corn, potatoes, carrots, beets, etc., which require considerable amounts of alkali. Its application to leguminous crops, as peas, beans, clover, lucerne, etc., is especially marked by increased activity of growth. If the soil is poor, however, ashes should not be applied alone, since they quickly exhaust the organic matter; therefore, manure should also be used, in order to reach the best results. Ashes also have an important mechanical action on soils, rendering light soils compact and strong clayey ones more friable. On clay formed by the breaking down of granitic and other rock containing potash, the effect is not so marked, for the reason that the soil contains a fair proportion of this important element. Unleached ashes act more quickly than when leached and therefore should not be applied in so large quantities. The soluble portion of hard wood ashes is from thirteen to fourteen per cent.; the insoluble portion or refuse of ash works eighty-six to eighty-seven per cent. Unleached ashes act slowly and for long periods, and belong to the class of carbonates.

The action of ashes as a manure is various; they supply to the plant inorganic constituents; they act chemically as solvents upon other insoluble salts already contained in the soil, and neutralize acids, &c.

Ten to fifteen bushels of unleached ashes per acre would be a good dressing, but much larger quantities of leached ashes may be applied; these would supply, if good from fifty to sixty-five pounds of potash.

The presence of lime is always essential to a fertile soil; at least the presence of lime should be shown. Four tons of lime per acre will give one per cent. to a depth of three inches. All goods soils contain more or less lime. Mechanically it acts as ashes do, that is, it opens and renders stiff soils friable and consolidates sandy soils, and if judiciously applied to any soil is beneficial.

Apply twenty or thirty bushels per acre of the refuse lime and ashes mixed, and you will soon be able to arrive at the yearly quantity your soil will require; but the more manure the greater quantity you may habitually use. Its application will be especially valuable in your orchard.

Truth may contrive to live at the bottom of a well, but it is about the only thing that can make a living in such obscurity.

ADDRESS OF CHAS. REESE.

Delivered before the Maryland Horticultural Society, April 21st, 1874, in support of Preamble and Resolutions offered by himself.

Destruction of the Forest Trees of America.

PREAMBLE AND RESOLUTIONS.

Whereas, Although the subject of the wanton destruction of the forest trees of America, justly celebrated for the symetrical beauty of their forms in Spring and Summer, and for the splendor of their autumnal foliage, has been brought before Congress, which will doubtless provide for their protection in all lands belonging to the United States; there still remains a wide field for the philanthropist, the legislator and the councilman, in providing for their preservation in towns and villages, and by the roadsides throughout the State; and

Whereas, It is the duty of every citizen, in an individual, as well as in a collective capacity, not only to restrain the unnecessary use of the woodmans axe, but to provide for a new growth of ornamental shade trees in all suitable places; be it therefore

Resolved, By the Horticultural Society of Maryland, that we regard the preservation of our forest trees as a subject of great importance to the interest of the State, and that we will do all in our power to prevent their unnecessary destruction.

Resolved, That we will use our influence throughout the State to promote the planting of useful and ornamental trees in all suitable places; more particularly by the sides of our public roads, and we do hereby recommend the passage of an Act by the Legislature, allowing the sum of one dollar for each and every Scarlet Maple, Tulip Poplar, Oak, or tree of certain other kinds, planted not less than fifty feet apart, on any turnpike or county roadside in the State, the amount to be deducted from the State taxes due on said property, as soon as it shall be ascertained that the trees have been properly planted and protected from injury.

Resolved, That a committee of three be appointed by the chirman to wait upon the Legislature at its next Session, and endeavor to have such an Act passed.

Mr. President and Gentlemen:

In support of the foregoing preamble and resolutions, permit me to say a few words upon one branch of this very interesting subject, for you know it has many branches as well as roots and leaves, but we will leave all the rest for the present, and confine our remarks to the planting of Trees by our public roads, and never did my pen perform a more agreeable duty than it now does in presenting for your consideration a subject so congenial to your cultivated and refined tastes—although well assured of your sympathetic appreciation of its importance, I feel in a painful degree my inability to do it justice.

If the powers of my mind were equal to the desires of my heart, I would this day utter in your presence an appeal on behalf of my silent friends, the scarlet Maple, and Elms, and time honored Oaks, an argument to awaken your interest, convince your judgments, arouse your enthusiasm, and inspire your hearts with a noble ambition, unequaled by any that you have heard since the voice of the sweet minstrel of the Hudson was hushed beneath its dark waters. Long may we keep green in the gardens of our hearts the memory of the lamented Downing.

Believing firmly that the spirits of the departed often influence our actions, when we are entirely unconscious of their presence, I earnestly hope, that this meeting, animated by that brave spirit, will this day begin a work which I firmly believe, in a few years, will sweep over the land, until the prairies of the West, and the sunny lands of the South, will throb with enthusiastic joy at the fame of your good deeds.

The planting of a tree by a skillful hand is really one of the simplest things in the world; and yet how few men will take the trouble to do it, from a higher motive than a hope of pecuniary reward.

Every man who has a soul as large as an acorn, admires a majestic Oak, that somebody else has planted, but it rarely occurs to him that somebody else might one day be made happy by the avenue of Elms or Maples, that he has long intended, but never succeeded in planting, because he did not expect to live long enough to see them in their prime, and hence it is that on nearly every farm in the country, there are numbers of fine trees standing in inappropriate places, which the owners would give hundreds of dollars to have by the roadside, or down by the pretty stone dairy, or in the sunny meadow, to shelter the panting herds from the noontide heat.

Occasionally, *as if by chance*, but *really providentially*—for *nothing happens by chance*, there is a special providence in the fall of an acorn. I say occasionally, we find a pair of stately Walnut or Cherry trees in the very spot we would have chosen for them. The storms of fifty winters have beaten upon them, and yet they look as if they would still flourish in the breeze, "hale green trees when a hundred years are gone." We wonder who placed them there, and are surprised to hear that the Walnuts were planted by the nimble footed Squirrel, and the others by a red-breasted fellow who had been "robbin" a neighboring orchard.

About twenty-five years ago, whilst riding along a dusty road at midday in June, I observed at the foot of a hill a noble Oak, whose spreading branches reached half way across the road; reining up my horse beneath its shady canopy, I alighted to drink from a small spring that sparkled near its base. A few yards from the tree stood a rude log cabin, at the door of which there sat an old woman smoking a pipe and knitting, sheltered from the scorching rays of the sun by the overhanging boughs. Struck with the singular beauty of the tree I felt a desire to know something of its history, and approaching the stile, I thus accosted her: "Good morning, Aunty, how long have you lived here?" To which she replied, "more than seventy odd years." I then asked her if she could tell me who planted that tree? And with great animation she answered, "Dat I can honey:—one day as I was sittin just here, an old man came slowly walking down the hill, as he was wiping the perspiration from his face, I just asked him to stop and take a drink from the spring there; after taking a

long draught from my old gourd ladle, he stood gazing at the house and at the spring, and then said, "Good woman I have no money to give thee but I will do something to make thee remember me, and taking a small shining nut from his pocket he scratched a hole in the ground just by the fence there, put the nut in, and pouring some water on it covered it up, and told me to watch over it till he came this way again.

"I has watched it for more than fifty years. The old man never came back, but I have not forgotten him," and the old woman's voice trembled as she said, "sometimes I thinks I hears him in the early morning away up yonder in the branches singing to the old woman who gave him the drink of water."

Slipping a piece of money in the hard hand of the good old lady I mounted my horse and rode away, deeply impressed by what I had heard. What influence it had in determining my taste for arboriculture I know not; but from that day to this I have been planting trees, and have planted many thousands. The labor has been one of love, and has repaid me a thousand fold for all it has cost me. The man who cuts a tree down may see the end of it, but he who plants one very rarely does, and when I think of the delights of generations unborn in their rich fruits, and grateful shades, I realize the force of the divine words, "Other men have labored and ye have entered into their labors"—

Oh ever blessed volume,
Which more than life I prize,
What gems of radiant beauty
Greet my delighted eyes,
When pouring o'er thy pages
They burst upon my sight;
Like blazing stars adorning
The dark arched dome of night.

Do we ever think of those who planted the thousands of trees we are now using for railways and bridges, barns and banquet halls, with any other feelings than those of profound gratitude and affection. Knowing that these uses will continue, and that those coming after us will require ten times as much as we now do, ought we not to plant at least ten for every one that we now destroy, instead of doing precisely the reverse? Of course I do not refer to short lived fruit trees, but to trees for timber uses, and ornamental shade trees.

This brings me, Mr. President, to the main object for which this paper is written. With more joy than I can express I have seen that the strong arm of the General Government has been raised to check the besom of destruction that has been sweeping over our land. Unless the axe of the woodsman is stayed the "old familiar trees whose glory and renown are spread o'er land and sea," would soon be all "hacked down," and the sunny memories of childhood which cling around them close as their rugged barks, will charm us no more. The matchless beauty of our forests, upon whose many tinted crowns the glory of the rainbow lingers, until the frost king enshrouds them for the grave; will pass away before our painters have caught the sweet vision and fixed it upon the canvas. All honor to our Representatives in Congress, who have interposed the strong arm of the law to avert this calamity. It now remains for us to do our part, and I wish, sir, to offer a resolution recommending the passage of an Act by the Legislature of Maryland, giving to each property owner who shall plant a shade tree of a certain kind by the side of a public road passing through or by his farm, the sum of one dollar for each tree, the amount to be deducted from his taxes, provided the trees live and flourish. This is no new thing, Mr. President, it has been tried in Saratoga, New York, and other places with the best results; and I see no reason why we should not adopt it here. No one can measure the influence of one strong man in a neighborhood, and if my words to day inspire one or more to move in this work, I shall not have written in vain. Next year perhaps, more will join, and the good work will go on.

It is not generally known that the magnificent rows of Elms at New Haven, Connecticut, whose fame is almost national, have given to that old New England town the title of the *Elm City*, were planted by and through the influence of one man, a Mr. Hillhouse, and all through the Eastern States, there are dozens of towns, Norwick, Springfield, Northampton, New London, Stockbridge and others, evergreen monuments of the spirit infused into the people by such men as Downing, Wilder, Meehan and others, where there are miles of beautiful trees seen from the mountain heights shading the dusty roads, reminding one of the long lines of Lombardy Poplars, marking the highways in the fertile plains of Piedmont and Lombardy.

What nobler legacy could this Society leave to posterity, than the inauguration of such a work in the State of Maryland, and as one humble member I am resolved to devote all the energies of my mind and will to its accomplishment.

I know it will cost money, and much toil and trouble, but I remember that Lord Derby once said, "That genius was another word for *an infinite capacity for taking trouble*." A fact which we find illustrated in the condition of the neat tidy farms that we occasionally see with everything in order, the gateway nicely shaded with Vines and Evergreens, the gravel walks rolled and weeded, the fruit and shade trees trimmed, and the flower garden and truck patch cleared of useless trash, belonging to the men who, by the neighbors for miles around, is said to be "quite a genius"—Why? Because he takes the trouble to get up at five o'clock in the morning, puts on his long boots, old hat and coat, in one pocket of which he has a pruning knife and coil of copper wire, and in the other a hammer, strips of leather and a paper of tacks, and with these he spends an hour or two in his garden and vineyard before the real labor of the day begins, whilst his fat neighbors who inherited their broad acres from a line of ancestors running back to the continental Congress, or perhaps to the first John Smith, Pocahontas, F. F. V., are finishing their morning naps and dreaming of Fox hunting and old Bourbon, the condition of whose farms I will not attempt to describe, as I am not a genius.

Well, now Mr. President, this work will not be done without a fixed determination on the part of each to become "a genius" for once at least, and resolve to do it. Let those who have but few to plant be thankful they have no more, and those who have many thank God for the opportunity of doing so much good for their fellow men.

In concluding, Mr. President, allow me to quote

an old Spanish proverb, which done into English rhyme reads thus:

Blessed is he or she,
That planteth a tree.

And to relate an anecdote illustrating its importance in other countries.

In the little village of Le Bais, in the South of France, there is a society whose constitution requires as a condition of membership, that the candidate shall have been known to have planted one or more trees, before he can become a member. A few years ago there came to the village a very good and pious priest, who by an unceasing round of charities, found his way to the hearts and homes of the people. On several occasions they besought him to plant, and become eligible to membership in their society, but he invariably answered them, "My children, the seeds that I plant must be sown in the heart, so that the fruits may ripen in the heavenly kingdom."

Zealously engaged in the good work to which he had devoted his life, he never performed this simple act, and finally passed to his reward.

The good people gathered around his bier and praised his noble life, but concluded their eulogies with this remark, which with them outweighed a host of lesser virtues—

He never planted a tree
In sunshine or in shade,
Therefore, unhonored, he
Must in the earth be laid.

Trusting that a better fate is in reserve for every member of this Association, I ask the adoption of the Preamble and Resolutions.

To Destroy Moles.

Bryan Tyson, of Washington City, gives the following method for making pills to destroy moles:—In early spring about the time moles begin to come forth from their winter quarters, make a stiff dough of corn meal, mixing with it a small quanity of arsenic. Make a hole with a finger in the runways, drop in a lump of the dough about the size of a marble, and then cover over with a lump of earth to exclude the light After the first rain go over the field again and deposit in all freshly-made roads. I once concluded to plant a piece of sandy bottom land in sweet potatoes, but as it was much infested by moles, my success depended on first exterminating them. A few doses of arsenic given in the way described brought about the desired result, and it was a very rare circumstance to see the track of a mole in this piece of ground during the entire summer.

WIRE-WORMS.—These are found in the greatest quantities in fresh new loam, just brought from the fields, and such soil when used for valuable plants, should be carefully examined, and the wire-worms crushed; their brownish-red bodies are easily seen. Mr. Tillary writes to the *Garden*, that slices of potatoes or lettuce stems will likewise entice them where they are numerous. The slices should be placed under ground, and then frequently examined. He saved a bed of seedling Gladioluses that were planted in some new loam, which he found afterwards swarmed with wire-worms, by placing slices of potatoes and lettuce stalks in the ground after he found that some of the plants were flagging.

FERTILIZERS.

The Central Delaware FruitGrowers' Association, has lately been discussing the subject of Commercial Fertilizers. At the April meeting, Mr. Underhill, on behalf of the committee on Fertilizers presented the following highly interesting report, which was listened to attentively by that very intelligent body of agriculturists. We copy from the *Peninsular News*, of Milford, Delaware:—

Agriculture is indebted for a large share of its success to the judicious use of both domestic and commercial fertilizers. Out on the virgin prairie lands, the fertilizing material is not needed to-day to help furnish those bountiful crops nature is so lavishly pouring forth. The more liberal the farmer is with all the fertilizing material at his command, the greater will be his success; and when a community of farmers are prosperous, it follows that the business of the merchant would be active; and if this is so, the different manufacturing establishments would be thriving, and the commerce between nations would keep all the vessels employed to carry to foreign manufacturers the farmers surplus grain. Thus the proper enriching of the soil, so that nature may be bountiful at harvest, exerts a powerful influence all through the grand divisions of industry; indeed, we might say they were all dependent upon the success of the farmer. If so great and momentous interests depend upon the skill with which he enriches the soil, how great should be his diligence in this respect? The great importance of keeping up the fertility of the soil was not ignored by the ancient nations. Numa Pompillius, second King of Rome, and who lived about the time of Isaiah the Prophet, was one of the wisest kings of antiquity. He manifested a great interest in the cause of agriculture by personally praising and encouraging those whose lands were well fertilized, and reproaching others who were negligent in this respect. Thus a great stimulus was given to the farmer in those ancient times to keep up the fertility of the soil, and consequently its productive capacity in the highest possible manner.

We are not surprised that Cato, the Censor, also surnamed The Wise, should have called Sicily the magazine of the Roman people, since Hiers II. did not think it beneath his notice to write a book upon the culture of lands, in which he gave advice full of wisdom and admirable rules for enhancing the productive capacity of the soil. The fabulous wealth of the island consisted almost entirely of the enormous crops of wheat grown, which resulted from a wise use of the various fertilizing materials at their command. China could not support its dense population, as it has done for ages, were it not for their skillful manipulation of every thing to make the soil more highly productive. Countries far in advance of them in all the arts of civilization may yet wisely imitate them in this part of their agricultural system. Heretofore we have exported large quantities of bone to England, but the increasing demand for them in this country, to be manufactured into superphosphates, will check this drain on our resources.

THE FARMERS CHIEF RELIANCE.

The keeping of cattle and sheep and the feeding

of them has, in all ages of the world, been the farmer's chief reliance to augment the fertility of the soil. It is thus that we can in a great measure account for the wonderful productiveness of the Land of Promise for over 1,000 years. Although of but small extent, it supported a population of over 3,000,000 souls.

The Holy Scripture informs us that Uzziah was accomplished in every part of a wise government. He gave particular protection to all those cultivating lands and keeping cattle. Cato, the Censor, being asked the surest and shortest method to enrich a country, replied: "The feeding of cattle, which is attended with an infinity of advantages to those who apply themselves to it with diligence and industry."

LIME—NITRATES—WOOD ASHES.

Too much can hardly be said of the importance of lime as a fertilizer. It is very benficial to all soils, all crops, all fruit trees and all plants. The clay soil is rendered by it more pliable and easy worked, the sandy soil more compact and loamy. It is especially beneficial in a peach orchard, both broadcast and immediately around the body of the trees, increasing their vigor and tending to keep the borer away. On a sandy loam the lime dissolves the silicates, rendering them available for the growth of the plants. A mixture of salt and lime is better, being quicker in its action than lime alone; quick lime should be used, and this slacked with the salt water, then there are formed chloride of lime and carbonate of soda, both powerful agents in decomposing vegetable matter in the soil.

Since lime is the cheapest fertilizer which the farmer has to purchase, and its effects are so apparent and striking in the increased grain and grass crops, it is surprising that it is not used more liberally.

The nitrates are very important salts in agriculture. That was a very short-sighted policy of Sweden which compelled the peasant to furnish a certain quantity of nitre for the government each year from their compost heads, and must in time result in great disaster. The composition of nitre shows it to be a powerful fertilizer, but the potash being in such large proportion, nearly 50 per cent., it could not safely be applied except in very small quantities.

Wood ashes are generally considered very beneficial to all fruit trees, and most soils are rendered very productive by their liberal use. The ash of the pine-tree, contrary to the popular opinion, is much superior in its fertilizing properties to that of hard wood. Fifty pounds of the latter yielding 6.75 pounds soluble, of which 4.60 pounds are alkalies; but 50 pounds of pine ashes yields 25 pounds soluble, of which 17.42 pounds are alkalies. The soluble being the more valuable part, the insoluble is omitted in the comparison.

FARM-YARD MANURE—POUDRETTE.

Farmyard fertilizers, when not composted, generally lose much of their value by the evaporation of the volatile ammonia; also by the rains washing away all the soluble portion, and by the combustion of the valuable organic part, observable by the familiar white ash, which is of little value, as food for plants, in comparison with what has escaped. An occasional sprinkling of plaster would immediately convert the volatile ammonia into the highly fertilizing salt, sulphate of ammonia. The immediate action of farmyard fertilizers is determined in a great measure by the nitrogen in them, this giving great vigor to the growing plants.

Home-made pondrette is one of the most stimulating fertilizers within the reach of the farmer. Col. Waring says that probably the value of what is yearly lost in the United States is $50,000,000.—Soot is of great value—as forty to one compared with the best farmyard fertilizer. If our most practical farmers considered it profitable to use the commercial fertilizers a few years ago, it ought to be so now, when as good an article can be obtained for a little over half the money. By mixing Peruvian Guano with the superphosphates, their value is greatly increased, as they induce a more early and rapid growth on vegetation. Lime should not be mixed with superphosphates, as it changes soluble phosphoric acid into insoluble phosphate of lime; neither should it or ashes ever be used in contact with any ammoniacal fertilizer without the presence of an absorbent, as they set free the ammonia.

PERUVIAN GUANO—MUCK—LEAVES.

If Peruvian Guano could be obtained in its pure unadulterated condition, it would be one of the best fertilizers that could be obtained. Careful English agriculturists consider the nitrates, with common salt, very valuable.

Millions of dollars worth of valuable muck are lying untouched along the banks of the streams in our State, which could easily be made available, to increase the productiveness of adjacent farms many fold, and add greatly to the wealth of the State.—An Eastern farmer, by using only muck and ashes, meets with as good success as his neighbors who rely entirely upon farmyard fertilizers. Some specimens of muck contain nearly three per cent. of available ammonia. By adding two per cent. of potash, or from sixteen to twenty bushels of ashes, to each cord of muck, farmyard fertilizer does not excel it. The salt and lime mixture is very valuable to use with muck. For corn, nitrate of potash, as one of the ingredients, is beneficial to keep the worms away. Fish make a very valuable ingredient to the compost help, the refuse of those caught largely for oil along the Eastern seaboard are highly prized by farmers. Kingcrabs would probably pay the expense of grinding and drying. Charcoal, in consequence of its powerful absorbent qualities, is valuable to mix with all fertilizers, having free ammonia. It is also very useful as a top dressing to grass lands, absorbing the free ammonia of the atmosphere.

Forest leaves are very valuable, as they contain a large per cent. of potash; should be composted with farmyard fertilizers, as they then serve a two-fold purpose, adding their own important ingredients and hastening the decay of the others.

The inscrutable wisdom of Providence is manifest in all of Nature's works. The existence of certain conditions and relations of substances to each other in the soil are so great and far-reaching in their effects that the very existence of the human race depends upon them. Were it not for the fact that geine, the principal ingredient of decomposed vegetable matter in the soil, is almost entirely insoluble in water, the earth would no longer yield its bountiful crops to man; but on the contrary, this essential part of all fertile soils, dissolved by the rains, would soon be carried far away out of the reach of the growing plants, and the earth would become a barren waste.

THE DAIRY.

LONG TABLE-TALK ON DAIRY MATTERS.

TALK NO. V.

FLAVOR OF BUTTER.

A large butter-dealer remarked some time ago in answer to the question, "How much first-class butter do you receive?" "Five per cent;" five lbs. only out of every hundred are prime; butter is selling from ten cents to one dollar a pound.

We want to make an article of fine flavor, good color and grain, free from buttermilk, solid and waxy; it is not enough to have butter free from bad odor or even well flavored; it must be high flavored.

There is so much inferior butter in the market, so much which has a bad odor, and brings such a small price compared to that of the sweet, first-class article, that it is well, before examining other features of the dairy business, to ascertain the causes of this large amount of poor butter and see if we cannot avoid some and remove others.

THE COWS.

1. Some cows will give plenty of milk, but the soft, white, frothy oleaginous substance obtained from their cream is not good butter. See that your cows are right to begin with.

THE MILK.

2. Milk will sometimes stand too long before being skimmed: the best cream, composed of the largest globules rises first, and some fancy butter makers will not wait for all the cream to rise, holding the increase diminishes the quality of the butter: cheese factories that skim the night's milk before making cheese of it makes a fine article from this sweet cream: it is even claimed that the best butter must be made from milk 12 hours old, which will depend altogether on locality and treatment of the milk: if the cream stands too long before churning too much of the milk sugar is converted into lactic acid, causing loss of flavor and quantity also by transformation: churn when the cream is only slightly sour. Again, where the cream remains long on or off the milk it forms a dry and leathery skin when exposed, which is composed largely of caseinous matter which does not get converted into butter, speedily causes decomposition in the butter and it turns rancid early.

VEGETABLES.

3. Turnips, cabbages, garlic and other vegetables, inferior grass and weeds, will taint butter: feed vegetables only after milking, and to remove animal odor and the scent of garlic, the heating of milk placed in a vessel of water to 140°, the boiling point 212° is better, will drive away the essential oil of the vegetables—the origin of the scent—which becomes volatile by heat: a preventive—by feeding only good food—is better than this cure: drive out garlic and golden rod, and queen of the meadow, and ox-eye daisy, and all of that class and replace them by clover, timothy, orchard grass, blue grass, and all of that class: hard, but we are after "gilt edge" now.

CAUSES OF ODOR.

4. Improper substances in the vicinity of milk and butter will taint them: a piece of veal on the cellar floor; a pond of impure stagnant water; a kerosine lamp used in the milk room; a piece of soap left on a pan-cover; coal oil in a country store; decaying vegetables; putrid animal matter in a cow pasture; cows drinking filthy water; partially decomposed milk, cream or cheese adhering to the dairy vessels, on the floor or shelving.

OAT STRAW.

5. Oat straw will make white butter; where there is much of this article to feed out and the object is good butter, it would be better to cut it up, moisten and put ground feed—bran mixed with corn and cob meal, rye, &c.—with it, for horses for which it would make excellent feed, than to give it to cows: we have at this late day an unopened stock of good oat straw which we shall feed to horses or sell, re-sowing good clover and timothy hay for the dairy.

HUNGARIAN GRASS AND CORN FODDER.

6. In search of some mysterious cause for bad flavor we have heard hungarian grass and green corn fodder complained of, but do not think the evidence sufficient to discard those eminently valuable forage plants from the list of soiling articles; change your feed occasionally and watch results, and if they are injurious don't feed them.

KEEPING BUTTER.

7. Great difficulty has often been experienced in keeping butter and getting it to consumers, after a fine article has been made. For short distances use the Philadelphia butter tub, or ordinary butter box, each of which has a central metallic—usually zinc—box for ice, around which on shelves is placed the butter: for long distances wrap the butter—pound or two pound packages—in thin muslin, put in the tub or barrel in layers, and fill with sweet pickle: butter has come from California in this manner, and would ship and keep, if so prepared, to any part of the world: before packing soak the vessel in a strong brine for two or three days to saturate the staves.

AERATION OF MILK.

8. This process is sometimes employed to remove the animal and other improper odors from milk: this may be done by a machine made for the purpose, a tin pump with a flaring top punctured with small holes and a rubber hose through which the milk is forced, falling from the pump in a spray, to the proper receptacle; or more simply by punching small holes in the bottom of a tin vessel and holding it some distance above the receptacle, pouring in the milk slowly and repeating the operation as often as may be desirable.

MILK IN ROOM OR CELLAR.

9. Milk is sometimes, particularly in sections north of Maryland, kept in a room adjoining the sitting, dining or bed room, and is liable to be affected by floating impurities from victuals, stove or body, especially where insufficient attention is paid to ventilation: milk kept in a cellar with vegetables is liable also to be tainted.

DRAINAGE.

10. Southern dairies are usually situated for the sake of having the cold spring water run through the dairy and around the milk vessels—at the foot of a hill and near or in a swamp: from the peculiar susceptibility amounting to predisposition—of milk, cream and butter, to atmospheric germs, it follows that without good drainage to prevent vegetable decomposition, and carry away any other impurities, good butter cannot be made: drain, scrub off and grub out these unprofitable accumulations of black and poison alders, tassocks, bulrushes, fox grapes, sasafras, green briars and stagnant water, and bring in the sweet luscious clover and the hearty timothy, and it will pay in many other things besides the cream pot.

GARLIC IN MILK.

11. If milk has the odor of this vegetable, so objectionable to some people, drop a piece of charcoal—a two or three inch cube—into the pan or pitcher: charcoal is an excellent absorbent and filter, and has been used for above purpose with success.

Bear in mind, in all treatment and handling of milk, that sweet milk is an exceedingly ephemeral article, bearing within itself to a greater degree than any other article of ordinary commerce, the seeds of its own speedy and unavoidable dissolution, and this natural tendency to quick decay, inimical to the interests of the butter maker, must not be facilitated by permitting it to absorb still other agents to hasten the process, but where milk has become tainted from any cause, the process of aeration mentioned in (8) may be improved by putting a cloth over the perforated pail, and pouring the milk through that into it: purify milk out into pure fresh air, away from all taints of stable or house.

THREE EXPERIMENTS.

To illustrate this tendency to decay in milk, we give the results of experiments with three lots of milk:

The first was aerated as above and cooled down to 51°, which is the temperature of very cold spring water, and was perfectly sweet one hundred and twenty hours, the second was shut up in a can at 98°, the temperature of fresh milk, and exposed to the heat of the sun; it was spoiled in seven hours.

The third was exposed to bad odors and was putrified in forty minutes, and rotten in seventy.

AROMA IN BUTTER.

As each vegetable and plant has a peculiar volatile oil of its own which gives to its aroma or scent—all butter makers are familiar with the distinctive aroma of butter made largely from turnips, cabbages, onions, garlic, and even green clover has a peculiar oil, which makes the dry plant a better article for butter—it becomes necessary to act upon the inference to make the best butter. Butter contains two per cent. of these volatile oils, which are capryolin, caproin and butyrin, which form capryolic, caporic and butyric acids, the basis of decay in butter.

The mingling of these oils would give the aroma to the butter: a predominant, pungent odor, where an article like garlic or turnips entered largely into the food of the animals would indicate at once the cause: others would be detected with more difficulty, but where Kentucky blue grass and dried clover, and timothy, and orchard grass are furnished to cows, with our ordinary soiling crops, wheat, rye, oats and corn, free from weeds and such grain—particularly oats, bran and corn—as experience shall demonstrate to be profitable, we may feel that we have taken necessary and important steps towards making the best of butter. *

Turnips to Cows.

We urge our friends in the dairy business to raise a large lot of turnips for their cattle; we are now feeding our rutabagas and consider them so valuable that we shall make preparation this year to raise several acres: enough, if impossible, to last from November to June: we have been feeding the flat, round strap-leaf, and the rutabaga, and the cows, and hogs too, appear to prefer with emphatic choice, the rutabagas.

Cheese Factory.

We give below transactions of a cheese factory —Spring Brooks—Oakland county, Michigan, as a few data upon which those of our Maryland farmers may figure, who contemplate the establishment of similar establishments in Maryland: in the meantime, the columns of this department are open for any and all who may desire information upon any branch of the business, or estimating of cost and proper apparatus:

Number pounds milk received,		1,142,543
" " cheese made,		115,069
Receipts from sales of cheese,		$14,338.11
Expense of manufacturing,	2,248.80	
" " marketing,	196 44	
" " superintending,	233.25	
" current,	59.36	
Interest on factory,	315.00	
Total expenses,		3,052.85
Net profit.		$11,285.26

Dairy Items.

"If you want a cow to milk easily, always let her go dry in the down sign of the moon, that is when the moon is taking off: a sure result follows." We clip the above for the benefit of those who go by the moon: if there is any danger in the above practice we think not much harm will be done, as most farmers stop milking when they can't get any more milk.

A dairy manager is not attending to his business if he does not see that cows are milked dry: the last of the milk is not only the richest but when left in the bag is absorbed by the system, and the practice will eventually run the cow dry.

Successful feeders in Europe give molasses constantly to fattening cattle and milk cows: a large German farmer gives a pint a day mixed with oil-cake to his cows, largely increasing their milk: one successful American farmer gives his cows molasses in their feed with good results.

The following is a rule that has been tried for five years with unalterable success: "to secure heifer calves, have your cow served by the male as soon as possible, after coming into season: for bull calves *vice versa*."

Try a little Orchard grass for a little variety, and report to *Maryland Farmer* result of experiment.

A MAN was boasting that he had been married twenty years and had never given his wife a cross word. Those who know her say he didn't dare to, but he never mentioned it.

GRAPE CULTURE.

Notes on Native Grapes.

For the benefit of our readers who desire information about setting out grapes for family use or market purposes, we make the following suggestions, verified by our own observation on some few of the valuable varieties which have proved themselves worthy of cultivation in this vicinity:

1. The *Delaware* is thought by many to stand first in rank for delicacy of flavor for the table and for its use in wine making. It ripens nearly two weeks before the *Isabella*, the most extensively known of all grapes. It is a good bearer, the bunches compact and weighty for the size, the bun-growing larger with the age of the vine until some of them weigh fully a pound and even more. It is hardy and seems especially adapted by its rooting to withstand a dry, warm season. It always brings a good price in market.

2. The *Concord* is a rival in the public estimation with the *Delaware*, some preferring one and some the other. It is remarkably sweet and delicious.

3. The *Dianna* is also a great favorite with many. With us, they are each, when well grown and fully ripe, favorites.

4. The *Hartford* prolific is constantly gaining in public favor on account of its very early ripening and hardiness, though for this latitude the latter quality is less important than further north, as all the varieties of the grape with which we are familiar are capable of enduring the frosts of our ordinary winters without injury.

5. The Isabella is an old northern favorite for sheltered situations. It will not endure severe freezing. In our garden it has grown well and been reasonably productive. The grape is large, branches heavy when the grapes all remain on the cluster till ripe, which is not always the case.

6. The *Catawba* does much better in Delaware than in Ohio or New York. In the latter State it seldom ripens in perfection. Here it never fails to ripen, and will remain on the vine growing sweeter till late in October. Being a very sweet grape and a great bearer, it has been the great wine grape where-ever it would ripen before being frosted.

7. The *Rebecca* and *Anna* are white grapes of very agreeable flavor and worthy of cultivation by the amateur. New varieties are constantly appearing, but it is always safe to plant sparingly of any, varieties that have not been tested by years of culture and proved to be valuable in our locality.—*Delaware State Journal.*

HILL'S "ARCHIMEDEAN" LAWN MOWER IMPROVED.—PRICE $25.

Treatment of Lawns.

The *Country Gentleman* gives the following advice:—Lawns should have all rubbish, sticks, and other obstructions carefully removed before the grass has made any growth, and the lawn mower applied while the new grass is yet short. By cutting as often as twice a week during the most rapidly growing season, the surface will assume the appearance of a dense green carpet; if allowed to grow tall, the difficulty of cutting is greatly increased, and the grass is thin and yellow below.—A good lawn mower will enable any man to cut four times as fast as by a scythe, and to do the work very much better; and no special skill is required to use them. Smoothly cut the edges of walks in even curves, and keep the surface of the gravel as smooth as a floor; this is one of the most important of all requisites for neat grounds. Without it, no grounds, however elaborate in other respects, can ever appear well.

"I'm so thirsty!" said a boy at work in a cornfield. "Well, work away," said his industrious father. "You know the prophet says: 'Hoe, every one that thirsteth.'"

LUCERN.

Major Freas, of the *Germantown Telegraph*, "goes" for Lucern, and the western man:—

Speaking of Lucern, the *Western Journal*, a leading agricultural publication, thus says of it:—"Lucern is considered by those who have tried it to be superior to all others as a forage plant, and is largely used for feeding green or soiling. Its yield of hay is enormous, five tons to the acre being no uncommon crop. Lucern hay is said to be very nutritious, and is eaten with great relish by horses, cattle and sheep. An acre will produce fodder enough, green and dry, to keep five horses. Much more use might be made of Lucern at the north, if its habits were better understood, and the best modes of culture ascertained by careful experiment." It will be seen that the editor knows nothing about it. He says "it is considered"—it "is said," &c. The whole statement is fallacious. Those who tried it in this region—some of them nearly half a century ago said they liked it, but abandoned its cultivation. The foregoing is the kind of stuff that leads the honest farmer into unprofitable experiment.

THE
MARYLAND FARMER,
A STANDARD MAGAZINE

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OFFICE—145 WEST PRATT STREET,
Opposite Maltby House,
BALTIMORE.
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Correspondent and Agent.

BALTIMORE, JUNE 1, 1874.

TERMS OF SUBSCRIPTION.

One dollar and fifty cents per annum, in advance. Five copies and more, one dollar each.

TERMS OF ADVERTISING.

1 Square of 10 lines or less, each insertion	$1 50
1 Page 12 months	120 00
1 " 6 "	75 00
½ " 12 "	70 00
½ " 6 "	40 00
1 " Single insertion	20 00
Each subsequenti nsertion, not exceeding four..	15 00
¼ Page, single insertion	12 00
Each subsequent insertion, not exceeding four..	8 00

Cards of 10 lines, yearly, $12. Half yearly, $7.
Collections on yearly advertisements made quarterly, in advance.

Special Contributors for 1874.

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Barnes Compton,	**Daniel C. Bruce,**
Dr. E. J. Henkle,	**Augustus L. Taveau.**
John Merryman,	**John Feast,**
A. M. Halsted,	**John Wilkinson,**
Ed. L. F. Hardcastle,	**John F. Wolfinger,**
D. Lawrence,	**C. K. Thomas,**
John Lee Carroll,	**Robert Sinclair.**

THE ROOMS OF THE
Maryland Agricultural and Mechanical Association,
Are now open for the RECEPTION OF VISITORS, daily from 10 A. M. to 6 P. M.
☞ S. W. corner of Fayette and Eutaw streets.
A. BOWIE DAVIS, *President.*
T. B. DORSEY, *Secretary.*

The Maryland Horticultural Society
will hold its next monthly meeting in this City, on Tuesday, June 18th, at 7 o'clock, P. M. Friends of the cause are invited to attend.
EZRA WHITMAN, *President.*
T. C. DORSEY, *Secretary.*

Patent Dairy.

We announce that a patent was granted and issued on the 5th inst. to our veteran Rural Architect, J. Wilkinson, Esq., of this city, for his very ingenious and perfect Dairy room improvements, by which the long sought for uniformity of temperature and thorough ventilation are secured.

A model of Mr. W's dairy may bee seen at our office. It takes the place of the unreliable, time honored "Spring-house," and promises to fully supply the great need so long and seriously felt.

IMPORTED EGGS.—Mr. J. Y. Bicknell, of Westmoreland, New York, received about the middle of May, from Mr. John R. Fowler, of Aylesbury, England—a large lot of Eggs, among which were 13 Black Spanish, 13 Creve Coeur, 12 Golden Pencilled Hamburg, 13 White Cochin, 13 Houdan and 12 Aylesbury Ducks.

PREMIUM ESSAYS—PENNSYLVANIA STATE AGRICULTURAL SOCIETY.—We learn from the *Practical Farmer*, that our friend and correspondent, JOHN WILKINSON, ESQ., has been awarded the following prizes for Essays, at the March meeting of this Society:—"Saving Manures, &c.," with drawings and plans, $50—"Farm Failures," $30—"Farm Improvements," $25.

R. O. MULLIKIN, of Prince Georges County, Md. has entered into the Tobacco and General Commission business with Padgett, Dyer & Co. As a judge of Tobacco, Mr. Mullikin has no superior, and will prove we are sure, a reliable business man.

THE WASTE OF COTTON SEED.—Mr. Aikin, of South Carolina, says that the loss by neglecting to save cotton seed is immense; piles of seed are allowed to decompose and waste at nearly every gin house, and yet the seed is a valuable manure. For cultivated crops, 30 bushels of cotton seed in the drill, or 50 bushels broadcast, to the acre, will increase the crop considerably. Seed can be rotted by composting it in alternate layers of leaves, straw, and stable manure; 100 bushels of green cotton seed, mixed in bulk with a tun of soluble phosphate and allowed to remain a fortnight, will make a capital compost for 10 acres of any cultivated crop.

Extraordinary Tobacco Crop.

JOHN H. D. WINGATE, Harris Lot, Charles Co., Md., applied (1200) lbs. twelve hundred pounds of J. J. Turner & Co.'s Excelsior in 1873, on three acres of land in Tobacco, (say 20,000 hills) and raised therefrom six hogsheads weighing over five thousand pounds of excellent quality Tobacco, worth at least five hundred dollars. *

Monthly Meeting of the Maryland Horticultural Society, for May.

The May meeting of this Society gave further evidence of the increased interest, and we may say, enthusiasm of its members and the public. The proceedings which we publish in this number evince a lively earnestness on the part of our people to make it a triumphant success, as it most surely will be, for the hour of doubt and discouragement has passed away, and the future bright and hopeful with reward to those enterprising men who conceived the organization of this great enterprise, of which our State for so long a time has felt the need. We therefore congratulate the officers, members and friends of Horticulture throughout the State, that we have at last an Association looking to its advancement on a firm and solid basis, which is destined to render inestimable benefits to the producers and lovers of fruits, flowers, vegetables, &c.

There were able addresses delivered, and papers read at the last meeting, which made it one of great interest to all present.

The display of plants, flowers, &c., by the veteren, John Feast, A. L. Black, Robert Halliday, Ezra Whitman, C. J. Lehr, Mark C. Taylor and others, was highly attractive, and called forth the unqualified admiration of all. This was the first meeting at which the Ladies graced the hall with their presence, at which there were a goodly number.

Arrangements are about being made to secure a more commodious Hall for the Society's meetings, and especially for holding the monthly Exhibitions, as everything indicates increased attendance, as well as larger and more attractive displays, if the promises made to the Executive Committee are only partially complied with.

It has been proposed by a number of gentlemen, friends of Horticulture, to offer private premiums for best displays of plants, flowers, fruits and vegetables, which if consummated, will be announced before the next monthly meeting.

The Executive Committee are actively at work making all the necessary arrangements for the Annual Exhibition in September next, which promises to be a grand success.

A hearty co-operation of every lover of horticulture throughout the State is earnestly invoked in furtherance of the good work. Constitutions and List of Premiums can be obtained by addressing T. C. Dorsey, Secretary, Baltimore.

Lime will pay on soils abounding in organic matter; on other soils its application is of doubtful utility.

The Maryland Agricultural and Mechanical Association.

This association held its regular April meeting on Thursday, May 7th, at their rooms—A. Bowie Davis, President in the chair—T. B. Dorsey, Secretary.

Gen. Geo. H. Steuart, Chairman of Committee on Legislation, reported that the committee had urged upon the Legislature the passage of five bills, viz: —On County Roads, Vagrant Stock, Immigration, Sheep and taxation of dogs, and that every bill but one proposed by them met with opposition. The bill relating to county roads passed without alteration. For the bills on Vagrant Stock and Taxation of Dogs substitutes little in accordance therewith were adopted and passed, and the Immigration and Sheep bills where lost. The report was accepted and the thanks of the Association tendered the committee for their labors,

A circular was presented from W. H. Jackson, president of the National Agricultural Congress, asking the appointment of a delegate to the third Session of the Congress to be held at Atlanta, Georgia, May 13th; the President by motion was authorized to appoint the same, whereupon he selected Gen. Samuel Jones of the Maryland Agricultural College, as a delegate to said Congress.

A proposition from Mr. James Vick, the famed Florist, of Rochester, N. Y. was presented, offering four premiums for the best collection of flowers from seeds grown or imported by him, as follows: $20 for the first premium, $15 for the second, $10 for the third, and $5 for the fourth. The offer is made to amateurs only, which on motion was referred to the Executive Committee.

By invitation of the Society, Prof Hutton, of the Maryland Agricultural Society, will prepare an Essay on *Domestic Manures*, to be read at the June Meeting.

The subject of utilizing the wastes of the City, that is of converting the same into fertilizers, was taken up. An Essay was read by Dawson Lawrence, of Howard County, who treated the subject in its chemical and financial aspects.

The committee appointed at a previous meeting to inquire into the feasibility of preserving for the use of agriculture the sewerage and night soil of cities, submitted their report, expressing astonishment that a material now a nuisance, yet possessing qualities but little inferior to that for which untold millions are spent in far-off countries, should never have been sufficiently utilized for the purpose. From the universal attention now being paid to the subject of manures, both in Europe and America, the committee think the time seems close at hand when this, as well as all the other substances known to men capable of being turned to account for the improvement of land, will speedily be introduced to the world in such forms as will make them most available to the purposes of agriculture.

Gen. Geo. H. Bier presented a lengthy letter upon the subject of the utilization of the refuse matter of large cities, which was read. A communication written by the president, Mr. Davis, on the system of county roads, and published in the Montgomery County Sentinel, was read, and its favorable consideration, upon motion of Mr. Dorsey, recommended to the commissioners of the various counties.

A committee, consisting of D. Lawrence, of Howard county; Gen. Geo. H. Steuart, of Anne Arundel; Dr. M. Merryman, of Baltimore county; E. J. Hall, of Montgomery; and Dr. W. S. McPherson, of Frederick county, was appointed to investigate the repairs of public roads.

On motion a Committee was appointed to wait upon the agent for the sale of Peruvian Guano, to make some arrangements by which farmers can purchase in small lots, direct from the agents warehouse, as is now done in the City of New York. Messrs. Sands, Rieman, Slingluff and Brown, were appointed said committee, with Mr. A. B. Davis as chairman.

The Society then adjourned until the first Thursday in June.

For the Maryland Farmer.

IMPROVING SANDY LANDS.

There is a common prejudice as to what we familiarly call "Sandy Lands," that they will not hold improvement; that manures and fertilizers put upon them are washed out, sinking below the surface where plants grow; and that on the whole they are unprofitable and valueless. Hence there are too often seen great tracts of such lands, illustrating the unhappy influence of getting a bad name; and illustrating at the same time the general ignorance of the method of treatment which should make them of more value than such as are heavy with stiff clay, or stony, or otherwise hard to work.

It is often allowed that if there be clay in the subsoil near enough to the surface to be brought up at little cost, or if it be near enough at hand to be carted, such lands may be advantageously improved. Admitting that this may be so, it too often happens that this resource is not available, and we must look to other means of improvement.

The qualities that make such lands especially valuable are the ease and economy with which they may be worked, the quick growth of crop which is often and for many crops desirable, the rapidity with which they improve under proper treatment, and their superior power of enduring drought.

For our great staples of tobacco and corn they are much to be preferred to the heavier clay lands if made rich enough. Heavy weights of tobacco can be grown upon them, and the quality is always good. Lighter rains suffice to make a planting season, the plants start quickly and mature early, and less rain is required during the season of growth. The corn crop profits by the same circumstances. While stiffer lands are supposed to be best for wheat, it by no means follows that such lands cannot be made very productive of that valuable staple.

I have seen them rapidly converted into valuable corn lands, by the use of plaster alone on the natural growth of what is known in Maryland and elsewhere as 'wooly-head," sometimes "birds-foot" clover. Where the growing corn crop has been plastered, this natural growth often comes very thickly and shows itself in the Fall with its small clover leaves turned crimson by the frost. A dressing of plaster in Spring makes of this a dense cover in full bloom by the middle of June, and through this later in the season a good growth of crab-grass comes up. With such a mass of vegetation the intelligent cultivator need be at no loss to further improvement. To get the benefit of these natural growths it is absolutely necessary to abstain from disturbing the soil after laying by the corn.

But the ambitious farmer will want a more decisive and effective method of improvement, with which he can be furnished, but which he will find more costly in the beginning, and more profitable in the end. It is by the combined use of "alkali and green crop," as suggested in the April number of the *Farmer* in a short article from the New York *Tribune*, which says, "It is always better to use an alkali in connection with a green crop, from the reason that then the alkali will act in making the silica soluble and the humic acid of the plant will be left free to resolve itself into ammonia. Therefore a judicious combination of an alkali and a green crop can be made the best and cheapest fertilizers for a sandy soil."

The green crop especially suited to soils of this character is the field pea or cow pea in any of its varieties. Clover does not thrive until the texture has become improved, but the pea will grow well at once if well plastered, and has almost or quite the value of clover. If a bushel and a-half of seed be sown to the acre, and as soon after as practicable fifty bushels of lime, the first great step is accomplished. The green crop and the alkali so used will be fully brought into play when these are turned under together, or fed off in the Fall by a flock of sheep. The succeeding treatment may be regulated by the crop to be planted upon it next year. To store up *humus* by the use of green crops, and to increase with it the supply of alkali is what we want. If rye be sown in Fall and ploughed down when in bloom in Spring, and three to five hundred pounds of good super phosphate used, a profitable crop may be looked for that will more than pay the whole expenditure, and leave the ground capable of producing red clover and of indefinite improvement with little further care and cost.

It was just these elements which were used by the late Mr. Hewlett in the remarkable improvements made on his farm near Baltimore, and which at the time attracted much notice in the agricultural journals. A blowing sand, having no clay within ten feet of the surface, was made to bring forty-two bushels of wheat to the acre, seventy bushels of corn, and successive crops of hay, clover and orchard grass, and leave such store of matter in the soil for future use as to make a permanent improvement. That the same success could be counted on in all cases is not certain of course, but it is worth a fair trial, and this case will justify the attempt to realize it in others. N. B. W.

Ashes treated with sulphuric acid greatly improve their fertilizing qualities.

HORTICULTURE.

THE WEIGELAS.

Some thirty years ago our hardy ornamental shrubs received a valuable addition from Japan in the Weigela rosea, which has now become so well known and appreciated, that we suppose if the great majority of people were to be asked to name only one shrub "to have and to hold," they would name this as their first choice. The rosy flowers come out in June, and continue several weeks, and then the habit of the bush is round and the foliage good in every respect.

Some years later another species was introduced from the same country and named Weigela amabilis. The habit of the plant is more spreading. It grows taller—the individual flowers are not as large as the other—but they are borne very thickly together, and in good situations make a striking and beautiful appearance. This species has the advantage over the other that it blooms in the Fall as well as in the Spring, and often quite as profusely. There have been many varieties of this last species raised, differing only, however, in having the flowers lighter or of a deeper rose than the original species. During the last few years a pure white one has been introduced, which is considered by nurserymen as great an acquisition as the original Weigela rosea. It is called in the catalogues Weigela hortensis nivea, but appears to be a variety of the Weigela amabilis—like that species it flowers twice a year. It is already in some request by florists for winter forcing. We give with this an illustration of this new shrub, engraved especially for the *Maryland Farmer*.

SEASONABLE HINTS ON TREE PLANTING.

When trees are growing naturally in the earth, the little fibres push their way through the solid ground, and of course, are in this way in close contact therewith. They then draw in moisture easily. When trees are transplanted it is almost impossible to pack the earth so closely as it was before. A large number of little roots do not touch the soil, and then they are unable to be of any service in supplying food to the plant. In fact, the plant might as well not have these roots. A plant thus imperfectly planted, is in the condition practically of a plant with half its roots cut away. The good planter therefore takes care to have the earth packed as closely as possible about the roots. No matter however how well this may be done, there are always some space left. There is generally some water in the soil at tree planting time, and as the dry weather comes on and this water evaporates, the soil shrinks and separates from the roots. Now, the remedy for this is a good pounding down about a newly planted tree, as the weather becomes dry. Last season, in the height of the dry spell which occurred late in the Spring, the writer was passing through one of our leading nurseries where a large quantity of box edging had been set out. The proprietor was afraid it would be all killed by the drought. Most would have set to and watered it, but he had a couple of men with rammers, who were going along the rows ramming the earth against the plants, much as a pavior rams the stones in the streets. Meeting him in the Fall, inquiry was made of his success, and though the season was terrible on Spring planted box edging and other small things, he reported all in excellent condition. There is no doubt that a good pounding and ramming of the loose earth under a newly planted tree, when the weather becomes hot and dry, is much better than any amount of watering. Of course this must only be done when the ground is very dry. If done when wet, it will only shrink again as it dries.

To Kill Willows.—Cut through the bark with a light hatchet or drawing-knife, about five or six feet from the ground. Then strip the bark down to the ground in pieces two or three inches wide, leaving it fast to the tree at the bottom. This can be done in May, or any time when the bark will strip well. Toward the latter part of summer, or any time thereafter, the trees may be cut. Some will die previously, while others will remain green throughout the summer. But whether the trees be dead or alive when cut, their stumps will never sprout.

THINNING FRUIT.

In districts where the curculio prevails it seems like sarcasm to tell a person he ought to thin his fruit. In the case of the Plum, after the curculio has done with the tree, there is seldom any fruit to thin. In the case of the Pear and often the Peach, thinning is of decided advantage, not only to the quality of the fruit but to the tree itself. It must have often fallen within the observation of persons interested in fruit culture, that very often a tree will be covered with blossoms from which, however, rarely a fruit results. This is generally the case after a year of full bearing. Some people suppose the blossoms are destroyed before they have been properly fertilized by a late frost or a cold rain storm, or some other untoward circumstance ; but close observers know that this is not so, but is the consequence, in most instances, of a previous year of overbearing, by which the vital powers are in a measure exhausted. If trees are thinned of a portion of their surplus fruits, and otherwise treated as they ought to be, they generally go on bearing regularly every year.

Moreover, people seldom lose by taking off some fruit early ; and yet the desire to make all they can from the trees is often one of the reasons for leaving all on the tree will bear. It has been found that by judicious thinning the total weight is not much decreased. If for instance a load be left on a tree which would yield, when mature, a hundred pounds, the taking off of a fourth in infancy would still leave enough to make the same hundred peunds, while the fruit would be so much finer as to command a higher figure in market. The grape especially is a fruit which is benefited by thinning. It is not too much to say that in many cases one-fourth of all the young bunches formed may be cut off to advantage. The bearing shoots, which proceed from the buds of the last year's wood, may have all but two bunches taken off; and more if the young shoot be not very strong or the general vigor of the vine not good.

A remarkable rose bush adorns the cottage of S. A. Randall, of Santa Rosa, California. It was planted in 1858, and is of the Lamarque variety.—Imagine a bouquet of white roses twenty-five feet high, twenty-two feet across, beautifully rounded, with a blossoming surface of four hundred square feet, with four thousand full blown roses and twenty thousand buds!

Be truthful, honest and polite, and you will always be respected.

TRAINING RASPBERRIES.

We give below a brief article from the London *Garden*, on training Raspberries, which we commend to those of our readers interested in the garden culture of the Raspberry,—not being sure but it may be of service to those engaged in field culture also. What it says of the advantages of mulching the Raspberry, and of not disturbing the roots much, we know to be of still more value to our cultivators than to the English, as our climate is so much hotter than theirs, and the Raspberry always delights in a cool soil, which the mulch so well affords. It has been remarked that where the ground is well mulched the canes seldom get killed in the winter. Why this should be so we do not know, but it seems to be the fact.

It may be that in some localities where the canes do winter kill, it might not be well to follow the English writer so closely as to tie up in November, but we do not give the extract for the purpose of an exact following; but only that its general scope may be taken in:

"I find that Raspberries, when trained on trellises, yield more fruit than when tied to stakes, and they also have a neater appearance. I train mine on a wire fence, which consists of three galvanized wires stretched horizontally, and supported by upright posts. The wires are fastened at each end by means of screws, and to the intermediate posts by staples—a kind of fence which may be put up by any ordinary laborer. The stools are planted 2 feet apart in the rows; the canes are trained vertically, 5 inches from each other, and their tops are bent over the fence about 1 foot, which allows but a very small portion to be taken off in pruning. I may mention that it is of this bent part of the top we get our finest fruit, both as to quality and quantity. The rows are 6 feet apart, and they run from north to south. The soil here is loam, resting on marly clay, which is wet and cold, on account of the River Thames, at high water, coming up to within a few feet of the rows. I never dig between my Raspberries; they are simply mulched with good cow manure, which keeps their roots near the surface. In autumn, the surplus rods are cut out, in order to admit light and air to the remaining ones; and we run twine along from one end of the trellis to the other, for the purpose of keeping the canes up to the wires. In November they are gone over again, when the old rods are removed, and the canes for the ensuing year's crop tied in. This is accomplished by one man holding them in their proper position, while another ties them to the wires, and, in this way, it is surprising how much work two men can get over in a day. We have thus no trouble with stakes, and our Raspberry fence is always admired. I believe, too, that the longer the plants remain in one place the stronger the canes become, provided the system is carried out properly; and, under it, we always get strong canes, which bear good crops.

TOP DRESSING FRUIT TREES IN SUMMER.

We noticed in some Horticultural Magazine last Summer—possibly in the *Gardener's Monthly* of Philadelphia—the hint thrown out that the best time to top dress orchards is in summer, just before the trees start to take a second growth. This probably has reference to orchards in which the surface is covered with grass for hay making purposes, a plan which the editor of that magazine has been conspicuous in advocating. Where hoed crops are grown between orchard trees, of course the manure will be applied in the Fall or Spring, according to the crop grown on the land. Many, however, have their trees in grass orchards, and to these the hint may be acceptable. Our own observations lead us to the conclusion that manure at this time is very grateful, especially to the apple tree, a surface dressing spread under the trees say in July, and as far as the roots probably extend, certainly makes the leaves which follow of a larger size and of a deeper green than those on trees on which no top-dressing is employed, and this increase in depth of tint and size, is a good measure of usefulness. If we mistake not the paragraph we refer to recommended good commercial fertilizers where stable manure could not be had. In our own experience the scrapings of a barn yard had an excellent effect.

TROPICAL PLANTS FOR GARDENS.

During the few past years gardening has taken a new departure in having for summer decoration the curious leaved plants peculiar to tropical climes. This is called tropical gardening. In this style much use is made of the common castor oil plant. The Canna, Caladiums, and similar things with large or broad leaves. It is found that almost any of the plants from the hottest regions do very well in the open air of our summers. The Banana has remarkably large and striking leaves, and has been thought to be one of the few that will not do out in the open air with us. We note, however, in one of our horticultural magazines, that one was grown very successfully in the open air at Boston last summer. This is known as the Musa Cusete, a native of Africa. The common Banana, Musa Chinensis, is a native of the East Indies and China originally, although now in extensive culture in the West India Islands. Passing through Philadelphia last summer we saw one of these growing out in the open ground as vigorously as an ear of corn. The leaves were about six feet long, and the main stem had made a growth during the summer of about four feet. The owner proposed to keep it in a cool greenhouse during the winter and plant it out again this season.

IMPROVED FUCHSIAS.

The most common Fuchsias thirty years ago, were two which have gone entirely out of cultivation. One had round flowers with a very short and narrow tube, the other had very long, slender flowers, and very small in comparison with those we have now. The former of these was known as the Globe Fuchsia, and the last as the Ladies' ear drop. Most of our garden plants have been improved by selection. Those which showed a disposition to have large flowers or variously shaded colors were saved for seed, and each departure encouraged to move still further on. In time many striking forms were raised in this way; but the Fuchsia was first started on its present eminence by hybridizing different species. The globe and the ear drop kind were used as the female parents, and the flowers were fertilized with the large, coarse leaved and pale flowering Brazilian kinds, and in this way an immense variety soon came into existence. Double Fuchsias are a later innovation on the old thing as nature gave us. They have been in existence about fifteen years. They do not flower as freely as the single kinds, but yet a good double Fuchsia is a very pretty object to look at as a single flower.

The original Fuchsias had a crimson outer set of "leaves," or sepals as the florists say, and the interior set (petals) of a deep purple; but some of the newer ones have the sepals white or pink, and often the petals are light while the outside are dark. The florists are now trying to get the petals margined with some shade different to the rest of the petals as often a pansy has a circle of some different color, along the outer edge of the petals at the top. So far the success has been small; but it will doubtless be the next innovation.

ABOUT CABBAGES.

The New York *Sun* tells us, that "the cabbage crop will yield twice or thrice the income of the tobacco crop, with one tithe the labor bestowed on the latter. The increase of our German population has created a demand for cabbage which would astonish those who have not studied the produce trade. In all the large cities are manufactories of pickles and saurkraut, which are ready to contract for growing crops to almost any amount. The great cabbage fields in this vicinity are in New Jersey and on Long Island."

It may be of use to say that the cabbage does well only where it can have a very large supply of nitrogenous manure, of which class common stable dung is the readiest to hand. The cabbage referred to in the above extract is the late drumhead, and in our latitude it is set out in June or July. If the weather is hot or dry when we wish to set out the plants it is best to have the roots altogether in a bucket of water. Taken then fresh from the water to the soil a little earth adheres to the roots, and they go on better.

Some go over the tract to be planted with a dible and make the holes first, a boy follows and pours water in the hole, and after it has soaked away a little the plants are set in. By this plan they seldom wither much. The plants will come up again even if they do wither, but it always weakens them, and sets them back, and it is therefore best to avoid this wilting, if possible. For this reason, where no great quantity are to be set out, it is best to set them of an evening, as they get a little re-established during the night, and before the morning sun comes to act on them.

For the Maryland Farmer.

Fruit in the Potomac—Piedmont Region.

The recent severe weather has proved that low lands are unsafe for peach cultivation. Only those orchards on appearantly bleak and exposed situations have escaped. The ground at their roots remained frozen longer than did that in warmer aspects, and the frost failed to reach the high and windy knolls and hills when all in the bottoms were blighted. It will be worth while, after this warm winter and severe Spring, to notice the aspects and conditions of bearing orchards. I think it will be found as it has appeared to me, that the only safe places are northern or northerly exposures on ground naturally or artificially drained, and out of reach of the fogs and frosts of low bottoms, and and running water. The country about the Potomac River, from Gunston Point to Point of Rocks, and some distance back on either side, is one of thousands of hills, admirably adapted in their varying soils for the the cultivation of the different fruits, which shall before long make Washington and Baltimore the principal fruit markets of the East. Here on these hill sides are to be found the finest orchards and vine-yards, and the finest fruit; as the clays of the hills, though more difficult to work produce a much finer flavored fruit than the sands of the valleys and bottoms.

I know that one of your correspondents, and one experienced in fruit raising, maintains that shortening-in protects the buds in the winter more than anything else. Whilst I favor the method, from evidences I have seen of its benefits, yet I have not seen that trees so shortened-in withstand the frost any better than others. On the contrary I have known shortened-in and natural growth all killed in the bottoms, and the latter escape on high ground, in the winter and summer of last year.

I had much rather put out peach trees on a poor hill and make the ground rich by plowing in buckwheat than to put them out on good low corn ground.

HOLLYWOOD.

Reported for the Maryland Farmer.

POTOMAC FRUIT GROWERS.

MARCH, APRIL AND MAY MEETINGS.

Chalkley Gillingham, president in the chair.

The Secretary placed on the tables a large quantity of garden seeds and choice grains, sent from the Agricultural Bureau, for distribution among the members.

The "National Crop Reporter" was received, and after commendation by some members was placed on file.

A letter was then read from Mr. P. T. Hill, of the county, asking if wood ashes served the best purpose with a compost, or spread separately about fruit trees.

After some extended remarks upon the benefits of wood ashes, by Col. D. S. Curtiss, J. T. Bramhall and others, the secretary was directed to reply to Mr. Hill, that in the opinion of the association it is decidedly best to spread wood ashes about fruit trees, mixed with no earth or compost; that, spread alone, it tended to destroy insects and their eggs; and also, thus applied, provided alkali of great value. An axiom among fruit-growers should be, to carefully save all the wood ashes, and to carefully apply the same to the roots of their fruit trees and grape vines.

SITES FOR FRUIT TREES.

Stacy Snowden and N. W. Pearson presented peach buds from trees grown in different places. Those from the second range of hills on the Potomac river, Virginia side, were not destroyed, but were in a healthy condition; those from near the river were entirely gone. Those trees in exposed positions, where the wind was continually upon them, had good and perfect buds, those trees protected from winds were advanced and destroyed easily by slight frosts.

Messrs. Pearson, Snowden, Gillingham and others said that a person should always choose the west side of a slope for the peach orchard, where the sun's rays were not so direct as in other places.

Mr. E. Scott, a director of the Southern Maryland and Washington City Agricultural and Mechanical Association, presented a plan of consolidation with the Potomac Fruit Growers Association, and N. W. Pearson, of the Woodlawn Agricultural Society, the same proposition on behalf of his association. A committee of three, (Messrs. Needham, Chamberlain and Folsom,) were appointed to confer upon the matter, and getting all points, to submit the case to the association.

Major John H. King urged upon the association the propriety of discussing a limited list of fruits, such as he then presented: 12 apple trees, 3 summer, 3 fall and 6 winter; 12 pear trees, 4 summer, 4 fall and 4 winter; 10 peach trees, early and late; 5 raspberries, 5 strawberries, for market and table; 10 grape vines, 5 for table and 5 for wine.

Mr. P. H. Folsom moved that the words "five for wine" be stricken out and "five for market" substituted. Upon which a short and sharp discussion took place; but upon the question the motion of Mr. Folsom was supported by almost a solid vote.

Col. J. E. Chamberlain and J. T. Bramhall exhibited some well preserved fruit. Col. Chamberlain's apples being chiefly noticed, as demonstrating the profession that apples, and the best varieties, can be grown in the Potomac region successfully.

After an instructive address by the President, adjourned to the 1st Tuesday in April

April Meeting.

On account of storms, the attendance was not as full as usual—yet, it was earnest and interesting. In the absence of the president, Col. Chamberlain, of Waterford, Va., first vice president, took the chair, and Mr. F. W. Pearson served in the absence of the regular secretary.

The Society congratulated itself and the public on the further extension of the Washington & Ohio Railroad toward the Blue Ridge.

Colonel Chamberlain, who never fails to bring specimens of the many varieties of the apple raised by himself, said he was happy to be able to confirm what had just been said. He then placed on the table specimens of the Baldwin, grindstone, Rome beauty, lady apple, royal red, and wine sap—the last named a favorite variety in the Potomac region, as it deserves to be, especially as amongst the winter apples.

The society very generally approved of this assortment.

Major King called attention to the royal red, and advanced its claims as a table fruit, in consideration of its moderate size and bright and attractive appearance.

The chair inquired of the members as to the prospects of the peach crop, in view of the recent severe frost, and the thermometer indicating at one time 11° below the freezing point.

Mr. Pearson, of Woodlawn, Va., answered that he found the young peaches injured in his neighborhood, but to no alarming extent.

Judge Gray, of Munson Hill, Va., was not prepared to say what the effect would be on his orchards as yet.

Dr. Snodgrass thought the unusual prolongation

of the blooming process an indication that the young peaches were pretty safe.

Judge Gray confirmed this view as a justly hopeful one.

Col. Chamberlain called attention to a fact observed by him, viz: that on high grounds where there was no fruit last year, this year there was a prospect of abundance.

Judge Gray presented some specimens of the "Tewsbury winter blush," sent through Mr. Stoy, of Springdale, Va., accompanied with a letter stating that they were gathered from an apple orchard at least fifteen years old.

J. B. Bowman, of Vienna, Va., inquired as to the experience of the membership in the growth of the currant.

The chairman answered that he had found no difficulty. The main condition is stiff soil, and care as to thinning out the old branches and keeping the bushes clean.

A member exhibited some tree grubs, to show that the freezing had not killed them.

Adjourned to first Tuesday in May, at same place.

May Meeting.

A rainy day but a fair attendance, and interesting discussion, on grapes and peaches, in reference to the general destruction of the latter, by the frosty weather.

Colonel D. S. Curtiss called attention to the fact that the peach crop was largely injured by the recent weather, and also to the importance of paying more attention to the grape crop and to the preservation of the fruit through the winter.

He stated that to cut the clusters as near to the vine and far from the fruit as possible, with long stem, and then dip the end in mucilage or paste, and wrap the bunch in soft, dry paper and box them. By this method he claimed that the fruit could be preserved for some months—even till mid-winter.

In reference to grubs, lice, and other insects, he suggested that a pound of soot be used in the ground around the roots of the vine, and, in the absence of this, carbolic acid or coal tar should be used.

After a very free discussion and comparing of notes, among members from different localities, it was decided that the peach crop is at least half or three-fourths destroyed—Hales Early injured least of any. Cherries and Strawberries are also injured to some extent, in many places.

Some new members were elected, and the meeting adjourned till first Tuesday in June, at same place; and the public cordially invited to be present and participate in debates.

LAND MARK.

REPORT ON FOREIGN FRUITS.

At the recent meeting of the Western New York Horticultural Society, Mr. Geo. Ellwanger, chairman of the Committee on Foreign Fruits, made the following report on the subject submitted for their consideration:

In submitting the report on Foreign Fruits the Committee would respectfully say that but few new valuable varieties have been fruited the past year. The following have proved of more than ordinary merit, and were reported at the last session of the American Pomological Society:

PEARS.—Beurre Samoyeau—Medium size; skin yellow, with a red cheek; flesh buttery and juicy; last of September and first of October.

Madame de Desportes.—Medium size; skin yellow, with reddish dots; flesh melting and juicy; September and October.

Abbe de Beaumont—Medium size; skin greenish yellow, marbled with russet; flesh melting, juicy and very good; August and September.

Eugene Appert—Medium size; roundish; skin rough; brownish yellow; flesh melting; sweet; perfumed; delicious. *Romalston Duchests*—Medium size; pyriform; skin dull, yellowish green; flesh fine; very juicy; melting; vinous; very good; October.

APRICOTS.—Early Moorpark—Medium size; very early and excellent; July.

Alberge de Montgamet—Medium size; early; with handsome, mottled red cheek; juicy and very good; tree very hardy; July.

RIVER'S PEACHES.—Early Victoria—Size of Early York; fine flavor; 1st September.

Princess of Wales—Very large and beautiful; its color cream, with rosy cheek; melting, rich and excellent; 1st September.

Early Silver—Large, melting and rich; juicy and of the first quality; early in August.

PLUMS.—Reine Claude Range—Small, round purple; size of green gage; flesh green; juicy, with the rich, green gage flavor; September.

Iodoigne Green Gage—Size and form of good green gage, beautifully marked with purple; fine quality; September.

A SIMPLE INSECT CATCHING DEVICE.—A writer in *Les Mondes* says that he is enabled to materially reduce the number of insects which prey upon the flowers and fruits of his garden, by covering the inside of an old tub with liquid tar, and at twilight putting a lighted lantern within, leaving the whole out over night. The bugs, attracted by the light, try to reach the lantern and are caught and held fast by the tar.

MARYLAND HORTICULTURAL SOCIETY.

May Meeting and Exhibition of Plants and Flowers.

The May meeting of this flourishing Society was held on the 19th, at their Rooms. Ezra Whitman, Esq., President, presiding—T. C. Dorsey, Secretary.

The attendance was decidedly encouraging, and great interest was manifested both by members and visitors. A goodly number of ladies graced the hall with their presence, having been attracted by the beautiful floral display.

The exhibition of choice and rare plants and flowers far exceeded that of the April meeting, and elicited the encomiums of all whose good fortune it was to be present.

John Feast, of Baltimore, offered a rare collection of plants and flowers, comprising about forty varieties—with a very fine rustic basket filled with flowering plants, very artistically arranged.

Ezra Whitman, exhibited a fine collection of plants and flowers, numbering some twenty-five different varieties.

Andrew L. Black, of Baltimore, contributed a large collection of green-house and stove plants. The collection numbered over seventy plants—gems of the varieties represented.

R. J. Halliday, of Baltimore, exhibited an attractive collection of plants and flowers.

Mark W. Taylor, gardener for Mrs. Chas. Ridgely, exhibited magnificent heads of Cauliflower, one of which measured about forty inches in circumference.

P. J. Lehr, gardener for Henry James, Esq., had on exhibition, fine specimens of Cauliflower and Red beets.

After a thorough examination of the plants, flowers and vegetables, on exhibition, the Society was called to order by the president.

President Whitman, in calling the meeting to order, said about five months had elapsed since the incipient steps had been taken for the organization of a Maryland State Horticultural Society, and congratulated them upon the great harmony that had prevailed among the officers and membership, and was now happy to say that he saw nothing to prevent a perfect and triumphant success of our noble and laudable undertaking. On all hands the effort had met with a cordial approval, as all admitted its great usefulness, and the benefit that would accrue to our good old State, by the thorough organization of a Horticultural Society. The creation of a Society of this character, and arranging all its details, is attended with much labor. The Executive Committee, he would take this public occasion to say, had been most assiduously at work in perfecting the many details so essential to the final results of the enterprise—the Charter had been obtained, and, with the Constitution and By-Laws, had been printed in a beautiful form, and were now ready for distribution to the members and the public. Proofs of the premium lists were now ready and will be prepared in pamphlet form and ready for distribution within the next ten days. We shall then be ready to go to work to carry out one of the great features of the Society, namely, the Annual Exhibition. He did not believe there was a citizen of Baltimore city, or the State, who was not interested in this contemplated exhibition of fruits, flowers and vegetables, and he trusted it would be a gratification to all to assist in so pleasant and laudable an object as an exhibition of this kind. The admission fee, he remarked, is fixed at only $3, much less than societies charge, and he hoped soon to have registered the signatures of at least one thousand members. He called upon all the members to lend their aid in promoting the interests of the Society, and success would be certain.

General Samuel Jones, President of the Maryland Agricultural College, then delivered a very interesting address on horticulture—and the rise, growth and usefulness of horticultural societies. [We will present this address in full in our July *Farmer.*] Mr. Jesse Marden, Jr., read an interesting paper on the "Influence of the Moon on Vegetation," which was listened to attentively, and which will be found in another column of the present issue.

The Secretary read a letter from the Hon. J. A. J. Creswell, Postmaster General, who says:—"While it would afford him great pleasure to accept the courtesy extended, he regretted that, owing to pressure of public engagements, it would be impossible for him to do so, but expressed his hearty sympathy with the Society in their noble work."

A letter was also read from Dr. Samuel P. Smith, of Cumberland, Md., expressing regret at his inability to attend the present meeting, but would take great pleasure in attending some future meeting.

The reading of a paper prepared by Mr. Samuel Martin, on "Organization," was deferred until the next meeting in June.

On motion of Charles Reese, it was determined to hold the monthly meetings of the Society hereafter at 7 o'clock, P. M.

The place of holding the next meeting was referred to the Executive Committee.

On motion the Society adjourned until the third Tuesday in June, at 7 o'clock, P. M.

Pertinent Questions for the Southern Farmer.

Dr. Daniel Lee, of the *Plantation*, thus puts the question of meat production before the people of the South:—

"Twice the corn for forage will grow on an acre in the climate of Georgia that can be raised in England or Holland in one year. In the hands of a wise farmer, if corn forage and grain don't mean meat, what do they mean? We want our young friends who read the *Plantation* to compare the productive forces of the cotton zone with an average fall of rain of some forty-five inches, with those of Central Europe, with an average rain fall of 22½ inches, and a temperature that will do about half of the growing part of a crop of cotton. The organizing power of the land, and people who introduced root culture into England some centuries past, is small compared with ours. The force that makes a bale of cotton on an acre can perform the exact equivalent in the growth of wool, mutton, horse flesh, cheese or beef, Agricultural force is as enduring as time and as reliable as the multiplication table. Why not put more of this force into grass, meat and other provisions for foreign consumption? Why perpetuate a wilderness in the South and call it peace?"

Influence of the Moon on Vegetation.

Read before the Maryland Horticultural Society at its May Meeting, by the Author, JESSE MARDEN, Jr.

Mr. President and Members of the Horticultural Society of Maryland:

My attention has been called to a late article in in the *Courrier des Etats Unis*, on the influence of the Moon upon vegetation. It is there stated that the lunation immediately succeeding the vernal Equinox, is the period during which blossoms and and even shoots of trees, exposed to the clear light of the moon, are blighted, although the temperature may be several degrees above zero; this of course refers to the centigrade thermometer, where zero represents the freezing point equivalent to 32° Farenheit. The object of this paper is not to endorse the theory here advanced, but to urge upon my fellow members of the Horticultural Society of Maryland the propriety of making observations and notes on this and other matters of interest in relation to the influence, not only of the Moon, but of other natural causes, on vegetation. No fact is too trivial, no observation too insignificant, no source too humble, that teaches us anything concerning the laws of plant growth and the effects of temperature, climate and special cultivation. Gather facts from any source: only gather them.

> "Sieze upon truth where'er 'tis found,
> Among your friends and among your foes;
> On Heathen or on Christian ground,
> The flower's divine where'er it grows."

The lunation above mentioned commenced this year on the 16th of April, and ended on the 15th of May, and it is a fact known to all of us that the greatest injury that has been done to our fruit, was on the 30th of April, when the temperature fell to 27°, and ice was found an inch or more thick. The same was the case in 1873, when the lunation referred to occured from the 28th of March to the 26th of April, and it was during this same period that our fruit was injured. I had all the fruit on 2000 pear trees killed when as large as peas, and turned as black as though a fire had passed among them. These facts, incomplete in themselves without additional observations, would seem to lead to the conclusion that there is at least a shadow of foundation for the theory. If we can only ascertain at what particular period our fruit is killed and at what degree of temperature they are blighted, and the circumstances attending it, we have certainly advanced at least one step in fruit culture. I have this Spring had fires kindled entirely around one orchard of 3000 pear trees whenever the thermometer indicated less than 35° or less, in order that the smoke driven through the orchard by the wind might raise the temperature sufficiently to ward off frost. What the effect will be, I am unable to say, as it is an experiment; my opinion is that the smoke from a sufficient number of fires may increase the temperature two or three degrees, and this, when the mercury does not fall below the freezing point, may save a crop of fruit. As to what the effect will be when the temperature falls to 27° as on Aprll 30th, I am not prepared to hazard an opinion. It is also important to ascertain at how high a degree of temperature fruit may be injured when in blossom; whether it is necessary for the mercury to fall to the freezing point or whether the damage may occur some degrees above, as asserted in the article referred to at the commencement of this paper. I have built my fires at 35°.

But to return to the Moon: whether its light has any influence in the cases of injury mentioned above, is not clear; but it is the experience of every observer that the cold seems more intense during bright moonlight nights than at other times. An old neighbor of mine, who is a close observer, remarked to me a short time ago, that he had noticed carefully and had never known a general freeze to occur except on the light moon. I have also noticed the same thing several times, and am inclined to think he may be correct. Another fact in relation to the influence of the moon generally asserted and believed by persons engaged in procuring tan-bark, is, that the bark slips or separates better at the period of the full moon, in May, than at any other time. In this connection it would be interesting to know whether Nurserymen have ever discovered one change of the moon to be preferable to another for budding; whether the bark of stocks separates more freely at one time than another. The negro, who from necessity is a close observer of nature, and who can tell the time at any hour of the day or night by simply observing the heavens, plants his corn on the increase, and his potatoes on the decrease of the moon, and raises more corn and potatoes out of his half acre lot than his employer in his ten acre field, though the influence of the moon does not probably make the entire difference in the yield.

We all believe, or it is one of the recognized facts of Astronomy, that the Moon is near enough to our earth to influence the tides, and if near enough to produce this effect why may it not influence vegetation. It is one of these things we can neither affirm or deny. "Verily there are more things in heaven and earth than are dreamed of in our philosophy."

Science has made wider strides in the last twenty years than ever before from the fact that more attention has been paid during that period to experiment and observation than to theory; and many things heretofore regarded as superstitious have now become recognized facts in Physics. This observation in place of theory is exactly what we want in our particular branch of Science—Horticulture! for Horticulture is a science as much so as chemistry; governed by fixed laws which are becoming daily more generally known and which require experiment and observation to teach us their application. Formerly nothing was more uncertain than the occupation of those who "go down to the Sea in Ships;" but by the observations and researches of the late M. F. Maury, their paths are now as plain on the ocean as on the land, and with their wind and current charts and observations of the Signal Service, they may avoid the storms and perils of the deep and make their trips in the shortest time and in comparative safety.

In the same, the observations of the Signal Service Bureau may be of advantage to the horticulturists teaching him when and how to plant, prune, bud, and protect his fruits and flowers.

It is thus that every fact gathered from the great storehouse of nature is of advantage to us; we need a closer study of the effects of changes of temperature, cultivation, protection, special manures, and influence of nature in every shape; in fact, a

closer observance of nature and attentive perusal of that great book which the Almighty has spread open before us at every step; and notes of such observations for the advantage of our fellow laborers and for the advancement of Science. If we can do this and add to the sum of knowledge in our particular department, the Horticultural Society will not have been organized in vain.

The Pyramids of Egypt, acres in extent, were not thrown up in a single mass in a moment of time, but by the continuous and persistent labor of thousands of men, and brick by brick; so science is composed of single facts seemingly imperfect in themselves, but combined together forming a beautiful and harmonious whole, a key to the great volume of the works of God. May we each be willing to perform our part in adding to the progress of science and by a closer study of the works of nature.

Find tongues in trees,
Books in the running brooks;
Sermons in stones,
And good in everything.

Valuable Coloring Wash for Fences and Out-Buildings.

The following is a most excellent, cheap and durable wash for wooden fences and buildings. It owes its durability chiefly to the *White Vitriol* which hardens and fixes the wash:

Take a barrel and slack one bushel of freshly burned lime in it, by covering the lime with boiling water.

After it is slaked, add cold water enough to bring it to the consistency of good white-wash. Then dissolve in water, and add one pound of white vitirol (sulphate of zinc,) and one quart of fine salt.

To give this wash a *cream* color, add one-half a pound of yellow ochre, (in powder.) To give it a *fawn* color, add a pound of yellow ochre, and one-fourth of a pound of Indian red.

To make the wash a handsome gray stone color, add one-half a pound of French blue, and one-fourth pound of Indian red: a drab will be made by adding one-half a pound of burnt sienna, and one-fourth pound Venetian red,

For brick or stone, instead of one bushel of lime, use half a bushel of lime, and half a bushel of hydraulic cement.—*Practical Farmer.*

INDUSTRIES MAKE GREAT CITIES.—The growth of cities is due to the number and varieties of its industries, and it is to this cause that Northern and Western cities owe their great populations.—It would be well that Southern cities should profit by this fact and become centres of manufactures. Philadelphia, for instance, has 11,000 manufactories, which turn out $400,000,000 manufactured good per annum, and a population of three-quarters of a million, living in 126,000 houses, of which 40,000 are the residences of working people.

FARM FENCES.

A correspondent in the Kansas *Farmer*, thus sensibly discusses this question, which was called so prominently to the attention of our Legislators during the last session of the General Assembly of Maryland:—

"An impression almost as old as our country itself, seems to exist that public roads are public property and that grass which grows upon them is the common property of all the inhabitants, upon which their cattle may be turned to pasture. This is a mistake, and one which requires immediate correction, if for no other reason than that it is a very expensive one to the farmer, through which it passes.

This is the fee simple right. It is very unjust that either he who owns no land, or owning it, prefers to use that of his neighbors, should be indulged in so manifest a wrong.

It is the duty of the legislature of all thickly settled States, to protect the agricultural interests of the country, by providing that cattle shall not run at large; but that every man shall be compelled to take care of and feed his own stock, instead of turning it out on the highway to depredate upon the possessions of his neighbors.

Public roads are, to be sure, public property, but only for special purposes. While the public have the right to pass and repass over them, they have no other right than this, which the laws gives them, and no more substantial claim to pasture their cattle upon the road than upon the other side of the fence in their neighbor's field.

The law allows the public to use the land occupied by the road to travel over, and whenever they cease, either by operation of law or otherwise, to to use it for that purpose, it again becomes the property of the owner of the farm."

Dogs and their Cost.

The St. Louis Globe has been making some calculations from recent statistics on this question, and sums up in reference to the State of Missouri as follows:

"Our 400,000 dogs furnish one of the most important economic considerations now affecting the State. In the first place, they militate against the mutton crop annually to the extent of at least $5,000,000; secondly, they cost at an average of 25 cents a week each, $6,500,000—enough to run all our common schools and leave a large stealable surplus; thirdly, they slay annually, through hydrophobia, at least 120 persons, which, at $5,000 each—the average price paid by railroads for the very poorest of brakesmen—amounts to the further sum of $600,000. Here is a direct expenditure of nearly $7,750,000 for dogs, not to mention the fines, costs and more remote sentimental damages resulting from law suits about dog fights and severance of friendship between the owners of the combative curs. Capitalized, our dogs represent a waste of $80,000,000, and invested at compound interest, their worthlessness would pay off the national debt before 1900."

TOBACCO CULTURE.

Destruction of the Tobacco Worm.

A correspondent of the *American Farm Journal* gives the following new method of destroying these mischievous pests. He says:—

The Hon. Eli F. Shorter, of Alabama, a very extensive cotton and tobacco grower, claims that through the invention of one Rigill, of the same State, these destructive insects may be annihilated before they have done any mischief. The great enemy of cotton is a species of caterpillar, which by the above-mentioned invention is as easily eradicated as the tobacco worm, since the natural history and habits of both insects are quite similar, both depositing their eggs on the leaves of the cotton and tobacco plants. These eggs are laid by a species of fly, and hatch the worms or caterpillars. The invention of Mr. Rigill is a trap for catching these flies, which, when destroyed, strike at the root of the evil, and prevent all future mischief.—The trap contains a small kerosene lamp, and is placed in the cotton and tobacco fields at dark, and one trap frequently catches thirty and forty flies, each of which would lay, if unmolested, several hundred eggs, and therefore the destruction of the flies in one night, in a single trap, was equal to that of thousands of worms. One trap is said to answer for four or five acres. Mr. Rigill proposes to introduce his invention in all the Northern tobacco-growing States, where it cannot fail to become generally used, if it operates as represented, since the worming process is one of the most troublesome and expensive with which the tobacco planter has to contend.

How to Prepare a Tobacco Bed.

A correspondent in the *Tobacco Leaf* writes:—"The proper time to prepare a bed for raising tobacco plants is in August. A warm sunny spot should be selected that is sheltered as much as possible from the cold northerly winds, and a liberal dressing of manure plowed in. Horse manure is the best; at intervals through the fall this plot should be plowed two or three times and well harrowed each time, so that the manure and soil may be thoroughly mixed. In the spring, sow on a liberal dressing of phosphate, and cultivate and harrow until well mixed with the soil, and then roll down, rake lightly with a hand rake, sow your seed and roll again; I always sow dry seed if the spring is early enough to sow before the 10th of April.—Cover with glass, which is the cheapest and best and the only way that will insure you plants for transplanting the fore part of June. A bed never should be allowed to dry up after the seed is sown, for it should be remembered that the seed is very small and lies near the surface of the ground. To prepare a bed in the spring, I should use land that had been tilled the previous year, plow in a moderate dressing of manure, but put my main dependence on fertilizers which I should use, partly before sowing the seed, and then in a liquid form after the plants had obtained the size of a three-cent piece."

Department of Agriculture.

To the Editors of the Maryland Farmer:

I have read, not lately only, but for several years the grumblings and protestations of the agricultural press in regard to the working of the Department of Agriculture. And I think most of it is just, though what I would rather see, and which would perhaps be of better effect, would be expressions of opinion as to how the Department *should be* managed. The free and lavish distribution of common and uncommon seed and plants is an undoubted evil, as was the free distribution of extensive editions of Annual Reports, and scrap-book "Monthly Reports." But an experimental bureau for the fostering of agriculture is necessary, and an article or series of letters in your journal and other papers on how it should be managed would be of use.

AG.

Fodder Corn.

Mr. Addison H. Holland, a Barre farmer, read at a recent meeting of the Massachusetts Cheese Factory Association, an essay on Fodder corn, wherein he states:—With 17 cows he experimented to see what its value was in producing milk; during the month of July he turns his cows out into a good pasture after having fed them with fodder corn, and they showed a large falling off in milk. He then, through August, soiled them in the stable, feeding fodder corn, and there was a gain in the production of milk. In September they were again turned into the mowing (full feed) and they fell off. Mr. Holland cures his corn by spreading it upon the stone walls, and regards it as a valuable feed for milch cows when well cured. He thinks fodder corn the best crop there is to bridge over a dry time with; fed 60 or 70 lbs. per cow when they were kept in a short pasture.

ESSAY DEFERRED.—The Essay of Wilber C. Stevens, read before the Kent county (Md.) Agriculiural Club, is unavoidably deferred until our next issue.

Live Stock Register.

Spring and Summer Care of Swine.

The readers of our Journal have learned that we do not believe in a period of "storing" in the management of pigs; that the business of the pig is to turn food into pork, and not be rooting around for a mere subsistence, thereby wasting all the food it eats. No farmer can afford to keep any animal intended for its flesh in a stationary condition: there must be progress, constant and unvarying, to insure profit. But we do not believe in growing pigs altogether upon grain or refuse of the dairy. The pig is a grass-eating, animal, and therefore is not likely to be healthy when fed entirely upon concentrated food. The farmer will find it greatly to his profit to have a small grass lot connected with the pen for his pigs to run in after grass starts in spring: but he must not depend altogether upon the grass for growth. They should be fed in pen, also, all they will eat of bran and corn meal, other grain or skim milk, or whey and bran, giving all the food they can use to make a rapid and vigorous growth. The grass will keep them in health by mixing with the grain in the stomach, and thus assisting in the digestion of the solid food. When it is not convenient to have a pasture lot near the pen, a small quanity of grass (clover is best) may be cut and carried to them. A bushel basket full is enough for six pigs a day. We have found the same quanity of meal to produce fifty per cent. better result on two pigs, fed thus with grass than on two others of the same litter with no grass.—Skim-milk, with grass, will produce as good growth as can be obtained by feeding grain instead. It will be found that 1-7 to 1-5 of the live weight of the pigs will be consumed, daily, of skim-milk, and this will produce a gain of a pound live weight to about 12 lbs. of milk, average, during the first 300 days in the life of the pig, with the small quantity of grass mentioned. This will give, in many States, the value of one-half cent per pound, or one cent per quart for refuse milk. It will also make the value of the skim-milk of an ordinary cow (say 4,000 lbs. of milk,) worth $20 per annum. But this can only be predicated upon full feeding, for if fed only enough to keep the pig in store condition, the milk would pay little or nothing. Farmers must remember that it takes from 3-5 to 2-3 of the food that is ordinarily fed to animals to keep them alive or in their present condition, and that from the other 1-3 to 2-5 comes the pay for the whole food used, as well as the profit. Some of our readers may think we illustrate this point oftener than necessary, but we know there is nothing in stock raising upon which the farmer is so conservative as that of feeding. He is always inclined to seek breeds that eat less, whilst his efforts should be to develop those that can eat more and consequently produce a larger surplus of growth.

We must also call attention to the economy of feeding pigs well through the warm weather, because it takes one-eighth to one-third less food to lay on a pound of live weight in warm than in cold weather. Fatten your pigs every day of their lives, and do your principal feeding in summer. Pork usually brings a better price, in local markets, in September and October than in November and December.—*Live Stock Journal.*

Useful Recipes.

Windgalls.—A correspondent in the *Live Stock Journal* gives the following treatment:—Give rest and apply bandage soaked in cold water; also give the parts plenty of hand rubbing for two or three weeks, and should this not effect a cure apply an ointment composed of biniodide of mercury 1 part, lard 3 parts. The hair should be clipped off before applying the ointment, which should be rubbed in for fifteen minutes. Apply sweet oil or lard on the third or fourth day.

Grub.—Some one has cured grub in the head by filling a clay pipe with tobacco, lighting it and inserting the stem in the nose, applying the mouth to the bowl of the pipe and blowing the smoke into the sheep's head. Another has cured sheep so affected by blowing camphor, vinegar and black pepper into the nose of the sheep. About a hundred "remedies" for this plague in sheep have been published, some of them good enough. These may be so also. No harm to try.

Relieving Choked Cattle.—A correspondent of the London (Ont.) Farmers Advocate says he makes the suffering animal jump over a pair of bars, left up as high as the animal can be made to jump when compelled by the liberal use of a whip. He never fails to relieve a case of choking by this means. Occasionally he makes them jump over the bars twice; but once is usually sufficient.

A Western man relieves his choked cattle by simply taking up a hind foot and hitting a few smart blows with a hammer or stick or whatever comes handy.

Farcy.—A *Country Gentleman* correspondent says:—Fill a paddle with sharp tacks driven well through, and use it in puncturing the buds, after which wash the parts with salt and water, and turn your horse on good grass for two weeks, it will effect a cure. This has been my mode of treatment, and always with success. Green food is positively essential, and very often this alone will effect a cure.

Black Tooth in Pigs.—Another correspondent says:—The only remedy is severe but sure; pull every black tooth out with a pair of pinchers or nippers, and you will have no more trouble.

Scab in Sheep.—The *Western Rural* says: Carbolic soap wash is now one of the specific remedies; carbolic acid is the base of this. If you cannot procure this, take of pure crystals of carbolic acid, one part, dissolve in ten parts of alcohol, stir this into thirty parts of soft water, wash the sheep thoroughly with strong soapsuds, and then apply the liquid solution of acid, rubbing it in well. If the first application is not sufficient, repeat, and whitewash all places where the sheep may be liable to come in contact with whitewash in which the carbolic acid solution is mixed.

Worms.—The simplest worm medicine, and the most effective, will be to give the following powder four or five times weekly, mixed in the food: 1 dr. pulverized sulphate of iron and 2 dr. pulverized gentian root mixed.

To Kill Lice.—Whale oil will destroy lice and is not injurious to cattle. An ointment of three parts of lard and one of sulphur applied liberally, is also destructive to lice.

Warts on Cows Teats.—Apply caustic potash to the warts two or three times a day and they will disappear.

LADIES DEPARTMENT.

A CHAT WITH THE LADIES FOR JUNE.

BY PATUXENT PLANTER.

"The heats of the Summer come hastily on,
The fruits are transparent and clear;
The buds and the blossoms of April are gone,
And the deep-colored cherries appear.

The blue sky above us is bright and serene,
No cloud on its bosom remains;
The woods and the fields, and the hedges are green,
And the hay-cock smells sweet from the plains.

Down far in the valley where bubbles the spring,
Which soft through the meadow-land glides,
The lads from the mountain the heavy sheep bring,
And shear the warm coat from their sides.

Ah! let me lie down in some shady retreat,
Beside the meandering stream,
For the sun darts abroad an unbearable heat,
And burns with his over-head beam."

Yes; warm, luscious *June* has come, with his heat and thunder showers, to hasten the grass and grain harvest, and to stimulate the whole vegetable kingdom into rapid development of growth. June comes too, loaded with the first fruits of summer, such as *Apricots*, *Cherries*, *Strawberries*, and other small fruits. While Pomona is spreading before us such a delectable repast as her first offering of the season, Flora perfumes the air and gladdens the scene with her roses and other of her choicest gifts to the human race.

"These are thy pictures, *June:*
Brightest of summer months—thou month of flowers!
First born of beauty, whose swift-footed hours,
Dance to the merry tune,
Of birds and waters, and the pleasant shout
Of childhood on the sunny hills pealed out."

June is rose-month, and ladies, you will have but little to do in your flower garden, except to thin the annuals, check the over-exuberant growth of the shrubbery, and admire the brilliant throng of roses, and other flowers coming in bloom. Should the weather be hot and dry use the watering pot freely.

The poultry yard will now yield a return for your care and attention by furnishing tender young chickens for broiling and frying. The garden will yield its peas, lettuce, spinach, beets, radishes, &c., and the girls can pink their fingers with the red juices of the luscious strawberry as they gather and stem them.

June is emphatically the butter-making month in most rural districts, and the dairy will give you most delightful employment, morning and evening, in aiding or superintending the work that goes on there.

If there is one month in the year more than the rest, likely to win the love of woman for rural life, it is *June*.

For exercise, every lady, especially young ladies, should ride horse-back. It is the most healthful, graceful, and exhilerating exercise they can take. The pleasures of the dance and other amusements are not comparable with it. Then let me urge you, to rise when the earliest bird notes are heard, and in the early dawn, when the air is heavy with the perfume and fragrance of the woods and fields, and the dew sparkles on grass and spray and wild flowers, mount your horse and dash gally over hill and plain, tangled copse and dense woods, through clover and grain fields, in an extacy of delight, fill to the brim your cup of joyous emotion, and suffer your heart and soul to drink to repletion the beauty which lovely nature has provided around you. The enthusiastic *Grace Greenwood*, after very happily describing a horse-back ride, closes with the exultant exclamation so natural to a high-spirited and ambitious woman:—

"What a wild thought of triumph, that this girlish hand
Such a steed in the might of his strength may command!
What a glorious creature! Ah! glance at him now,
As I check him awhile on this green hillock's brow!
How he tosses his mane, with a shrill joyous nelgh,
And paws the firm earth in his proud, stately play!"

The great fault with our dear women of America is, they do not exercise enough in the open air, on foot and horse-back, and in open carriages as they grow old or clumsy. If they imitated their English sisters in this role of life, they would increase the general longevity, and much retard the fading of their beauty—very young girls ought to be made to skip the rope; use dumb-bells; exercise at battledore and shuttle cock; ride horses and drive a poney pheaton; learn the use of fire arms, so that they could load and fire a pistol or gun; be taught to swim and never fail to take their cold bath, winter and summer. With such an education, added to their universally acknowledged natural claims, we should have our ladies become the boast of the world, and they would be truly fit mothers of such men as alone ought to rule this magnificent and glorious land, on which a beneficent Providence has showered every blessing that humanity could desire.

In my chat a few months since, I mentioned that there were blue and yellow Oleanders, and did not say they were originated in England, because I supposed our florists would have them. But I learn that none have been imported. They will no doubt be brought out next year, with a vegetable novelty—a snow-white cucumber, said to be one of the best for the table of a gentleman ever grown. It will be invaluable to such ladies as put up yellow pickle. They will be rid of all the trouble of getting rid of the green color. All they will have to do will be to apply the tumeric, and they will color yellow as easy as the white heads of cabbage. So my lady friends may be on the look out next year for these novelties.

GRASSING A SLOPE.—A steep slope may be grassed over without sodding by first smoothing the surface and then mixing a tough paste or mortar of clay, loam, and horse manure, with sufficient water. The grass seed, which should be a mixture of Kentucky blue grass and white clover, should be thickly but evenly scattered upon the moist surface of this plaster, as it is spread upon the bank. The plaster should be at least one or two inches thick, and a thin layer should be laid over the seed. The surface should be kept moist, and a light dressing of some active fertilizer would help the growth. In a few weeks the growing grass should be cut and should be kept short at all times until a thick sod is formed.—*New York Tribune.*

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